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MIL-HDBK-1006/5 (DRAFT)
31 MAY 1995

MILITARY HANDBOOK

GUIDANCE AND PROCEDURES FOR THE

NEWPORT DESIGN BUILD PROCESS

* NOTE: THIS MILITARY HANDBOOK PROVIDES GUIDANCE FOR THE *
* NEWPORT DESIGN BUILD PROCESS AND IS PUBLISHED AS A BETA TEST. *
* THIS LATEST EDITION REFLECTS RENUMBERING 11 NEWPORT DESIGN *
* BUILD GUIDE SPECIFICATIONS USING THE UNIFORMAT NUMBERING *
* SYSTEM. PREVIOUS COORDINATION COMMENTS HAVE NOT YET BEEN *
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* DOCUMENT, CONTACT MR. JOHN FIDLER AT NORTHERN DIVISION, *
* NAVAL FACILITIES ENGINEERING COMMAND, TELEPHONE 610-595-0578. *

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ABSTRACT

This Military Handbook includes the Naval Facilities Engineering Command's (NAVFAC) guidance and procedures for the procurement of facilities construction by the Newport Design Build (NDB) Process. Background information, NAVFAC guidance, detailed instructions for the preparation of NDB Invitation for Bids (IFB) documents and guidance for the administration of NDB contracts are presented for the use of NAVFAC personnel and architectural and engineering firms.

FOREWORD

This handbook is one of a series developed for instruction on the preparation of Navy facilities engineering and design documents. This handbook uses, to the maximum extent feasible, national and institute standards in accordance with Naval Facilities Engineering Command (NAVFACENGCOM) policy.

Recommendations for improvement are encouraged from within the Navy, other Government agencies, and the private sector and should be furnished on the DD Form 1426 provided inside the back cover to Commanding Officer, Northern Division, Naval Facilities Engineering Command, Code 09X, 10 Industrial Highway, Tinicum Industrial Park, Mail Stop 82, Lester, PA 19113-2090, phone (610) 595-0652.

THIS HANDBOOK SHALL NOT BE USED AS A REFERENCE DOCUMENT FOR PROCUREMENT OF FACILITIES CONSTRUCTION. IT IS TO BE USED IN THE PURCHASE OF FACILITIES ENGINEERING STUDIES AND DESIGNS (PLANS, SPECIFICATIONS, AND COST ESTIMATES). DO NOT REFERENCE IT IN MILITARY OR FEDERAL SPECIFICATIONS OR OTHER PROCUREMENT DOCUMENTS.

CRITERIA POLICY AND PROCEDURES MANUALS

<u>Criteria Manual</u>	<u>Title</u>	<u>PA</u>
MIL-HDBK-1006/1	Policy and Procedures for Project Drawing and Specification Preparation	LANTDIV
MIL-HDBK-1006/2	Policy and Procedures for Guide Specification Preparation	HDQTRS
MIL-HDBK-1006/3	Policy and Procedures for Engineering and Design Criteria Manual Preparation	HDQTRS
MIL-HDBK-1006/4	Policy and Procedures for Definitive and Standard Design and Standard Specification Preparation	HDQTRS
MIL-HDBK-1006/5	Guidance and Procedures for the Newport Design Build Process	NORTHDIV

GUIDANCE AND PROCEDURES FOR THE NEWPORT DESIGN BUILD PROCESS

CONTENTS

		<u>Page</u>
Section 1	INTRODUCTION	
1.1	Scope	1
1.1.1	Application	1
1.2	Purpose	1
Section 2	BACKGROUND	
2.1	General Description	2
2.1.1	Process Steps	2
2.2	History	3
2.3	Comparison to Other Procurement Options	3
2.3.1	Procurement Option Characteristics	3
2.3.1.1	Procurement Strategies	6
2.3.1.2	Specification Type	6
2.3.1.3	Contracting Methods	6
2.3.1.4	Contracting Methods Variations	7
2.3.1.5	Solicitation Type and Solicitation Response	7
2.3.1.6	Contract Type	7
2.3.1.7	Award Basis	7
Section 3	CHOOSING NDB	
3.1	General	9
3.2	Authority	9
3.3	When to use NDB	9
3.3.1	Advantages/Disadvantages of NDB	9
3.3.1.1	Advantages of NDB versus Traditional Strategy	10
3.3.1.2	Disadvantages of NDB versus Traditional Strategy	13
3.3.1.3	Advantages of NDB versus other Design/Build Strategies	15
3.3.1.4	Disadvantages of NDB versus other Design/Build Strategies	16
3.3.2	Project Characteristics to Consider in Choosing NDB	17
3.3.2.1	Special Project Goals and Objectives	17
3.3.2.2	Building Type	18
3.3.2.3	Building Scale	19
3.3.2.4	Building Quality	19
3.3.2.5	Site Constraints	20
3.3.2.6	Project Design and Construction Schedule	20
3.3.2.7	EFD/EFA Capabilities and Experience	21
3.3.2.8	Design and Construction Industry Capabilities and Experience	21
Section 4	PREPARATION OF THE IFB PACKAGE	
4.1	General	23

	<u>Page</u>
4.2 Method of Accomplishment (MOA)	23
4.2.1 A/E Preparation of NDB IFB Technical Documents	23
4.2.1.1 Advertisement for A/E - IFB Preparer Services	23
4.2.1.2 A/E - IFB Preparer Scope of Work	24
4.2.2 In-House Preparation of NDB IFB Technical Documents	25
4.3 Bidding Requirements, Contract Forms and Conditions of the Contract	28
4.4 Criteria for Preparation of NDB IFB Drawings and Specifications	28
4.4.1 General	28
4.4.2 Criteria for Site Design	29
4.4.3 Criteria for Building Design	30
4.4.3.1 Functional Layout	30
4.4.3.2 Handicapped Accessibility	30
4.4.3.3 Fire Protection and Life Safety	31
4.4.3.4 Security	33
4.4.3.5 Aesthetics	33
4.4.3.6 Mechanical Design	33
4.5 Drawings	33
4.5.1 General	33
4.5.2 Site Drawings	34
4.5.3 Architectural Drawings	34
4.5.3.1 Floor Plan(s)	34
4.5.3.2 Building Elevations	35
4.5.3.3 Door Schedule and Door/Frame Elevations	35
4.5.3.4 Window Schedule and Window Elevations	36
4.5.3.5 Finish and Color Schedule	36
4.5.3.6 Cabinetry, Carpentry and Millwork Plans and Elevations	36
4.6 Specifications	36
4.6.1 Division 1 - General Requirements Sections	37
4.6.2 Technical Sections	40
4.6.2.1 Technical Prescriptive Sections	41
4.6.2.2 Technical Performance Sections	42
4.7 Government Estimate for Construction	44
4.7.1 Format	44
4.7.2 Preparation	44
4.7.2.1 Estimating Construction Costs	45
4.7.2.2 Estimating the Contractor's Cost to Design	45
4.8 Design Analyses	46
4.8.1 Civil	46
4.8.2 Architectural	46
4.8.3 Fire Protection	46
4.8.4 Mechanical	46
 Section 5 ADMINISTRATION OF NDB PROJECTS	
5.1 General	48

	<u>Page</u>
5.2	Pre-Design Activities 48
5.2.1	Programming and Planning 48
5.2.2	Funding 48
5.2.2.1	Funding Construction Costs 48
5.2.2.2	Funding Design Costs 50
5.2.2.3	Establishing the Government's Estimated Cost of Construction (ECC) 50
5.2.3	Scheduling 51
5.3	Preparation of the IFB Package 52
5.3.1	General 52
5.3.2	Preproposal Meeting 53
5.3.3	Pre-Design/Orientation Meeting 53
5.3.4	Submission(s) and Review(s) of NDB IFB Technical Documents 54
5.3.4.1	Value Engineering Team Study (VETS) 55
5.3.5	Pre-Solicitation Notice and CBD Announcement 55
5.3.6	Design Progress Reporting 56
5.4	Advertisement/Bidding Period 56
5.4.1	Pre-Bid Conference 56
5.4.2	Inquiries During Bidding 56
5.4.3	Amendments 57
5.5	Contract Award 57
5.5.1	Pre-Award Survey 57
5.5.2	Award Procedures 57
5.6	General Administration of the NDB Contract 58
5.6.1	Government Points of Contact and Authority 58
5.6.2	Internal Contract Administration 58
5.7	Partnering 59
5.8	Administration of Phase A, Design Documents 59
5.8.1	Pre-Design Conference 59
5.8.1.1	Attendees, Points of Contact and Communications 60
5.8.1.2	Contract Schedule 61
5.8.1.3	Preparation of Design Documents 61
5.8.1.4	Design Coordination 63
5.8.1.5	Technical Requirements and Criteria 63
5.8.1.6	First Pre-Construction Conference 64
5.8.1.7	Conference Minutes 64
5.8.2	Design Progress Meeting 64
5.8.3	Confirmation of Complete Submission 65
5.9	Administration of Phase B, Government Conformance Review 66
5.9.1	General 66
5.9.2	Purpose 66
5.9.3	Scheduling 67
5.9.4	Method of Accomplishing the Conformance Review 67
5.9.4.1	General 68
5.9.4.2	Conformance Review by A/E - IFB Preparer 68

	<u>Page</u>
5.9.4.3	Conformance Review by EFD/EFA Technical Personnel . . . 70
5.9.4.4	Other Government Reviewers 70
5.9.4.5	Follow -Up Actions 71
5.9.5	Actions Possible Relative to the Conformance Review . 71
5.9.5.1	Late Submission or Resubmissions 71
5.9.5.2	Incomplete Submissions 72
5.9.5.3	Submissions Not Conforming to the IFB Requirements . 72
5.9.5.4	Submissions Not Conforming to Functional/Aesthetic Requirements 72
5.9.5.5	Submissions Conforming to IFB and Functional/Aesthetic Requirements 72
5.9.6	Government Signatures 72
5.9.7	Miscellaneous Administrative Items for the COTR . . . 73
5.9.7.1	IFB Drawings and Specifications 73
5.9.7.2	NAVFAC Drawing Numbers 74
5.9.7.3	Submittals Register (and Submittals Reviews) 74
5.9.7.4	Design Progress Reporting 74
5.10	Administration of Phase C, Construction 75
5.10.1	General 75
5.10.2	Commencement of Construction 75
5.10.3	Second Pre-Construction Conference 75
5.10.4	Schedule of Prices 75
5.10.5	Construction Submittal Reviews 76
5.10.6	Record Drawings 76
5.10.7	General Guidance for Administration of Phase C, Construction 76
5.10.7.1	Criteria 76
5.10.7.2	Design Errors and Omissions 76
5.10.7.3	Variations and Value Engineering Change Proposals (VECPs) 77

APPENDICES

APPENDIX A	TYPICAL A/E - IFB PREPARER SCOPE OF WORK	78
APPENDIX B	STANDARD TRANSMITTAL LETTER FOR REVIEW OF NDB IFB TECHNICAL DOCUMENTS	82
APPENDIX C	STANDARD TRANSMITTAL LETTER OF CONFORMANCE REVIEW BY A/E - IFB PREPARER OF CONTRACTOR'S DESIGN	83
APPENDIX D	STANDARD TRANSMITTAL LETTER NOTIFYING CONTRACTOR OF INCOMPLETE DESIGN	84
APPENDIX E	STANDARD TRANSMITTAL LETTER NOTIFYING CONTRACTOR OF NON-CONFORMING DESIGN	85
APPENDIX F	STANDARD TRANSMITTAL LETTER NOTIFYING CONTRACTOR OF CONFORMING DESIGN	86

	<u>Page</u>
FIGURES	
Figure 1 Procurement Options.	5
BIBLIOGRAPHY	88
REFERENCES	89
GLOSSARY	91

Section 1: INTRODUCTION

1.1 Scope. This military handbook, MIL-HDBK-1006/5, provides background information, guidance and detailed technical and administrative procedures for the procurement of construction by the Newport Design Build (NDB) process. Together with the Naval Facilities Engineering Command (NAVFAC) NDB performance guide specifications (NFGS-DB-XXXXX series), this handbook comprises NAVFAC criteria and guidance for the NDB program.

1.1.1 Application. NAVFAC agencies shall use this handbook for guidance in selecting appropriate projects to be procured via the NDB process and for detailed instructions for Government administration of all phases of the project, including:

- a) pre-design activities,
- b) preparation of the Invitation for Bids (IFB) package,
- c) the bidding period,
- d) contract award,
- e) initiation, review and approval of the successful bidder's proposed design, and
- f) oversight during construction.

This handbook shall also be used by:

- a) NAVFAC personnel preparing NDB IFB packages, preparing related construction cost estimates and design analyses and reviewing the successful bidder's proposed design and construction submittals;
- b) Architect/Engineer (A/E) firms preparing NDB IFB packages, preparing related construction cost estimates and design analyses and reviewing the successful bidder's proposed design and construction submittals (hereinafter referred to as the "A/E - IFB Preparer").
- c) General construction contractors and A/Es preparing design documents in response to the NDB IFB requirements (hereinafter referred to as the "A/E - Contractor's Design Agent") who may find the information in this handbook useful in understanding the NDB process and its implications relative to bidding, contract award, design and construction.

1.2 Purpose. This handbook has been developed to provide clear, consistent guidance and instructions for the acquisition of construction under the NDB approach in an effort to integrate the NDB contracting strategy into NAVFAC's procedures for facilities design and acquisition. While NAVFAC's experience with the NDB process has been positive, its continued success is heavily contingent on both proper Government administration and the complete, accurate presentation of project requirements in the IFB package.

Section 2: BACKGROUND

2.1 General Description. The NDB process is the development and use of a preliminary design and complete performance specification to solicit lump sum competitive bids for the final design and construction of a facility with contract award strictly based on the lowest responsive bid from a responsible bidder. It is an alternative contracting technique for the acquisition of facilities design and construction utilizing Design/Build methodology.

2.1.1 Process Steps. An overview of the major steps involved in the NDB process are as follows:

a) Definition of Project Requirements. This effort entails the preparation of a preliminary design and complete performance specification. An estimate of construction cost is also prepared. The preliminary design and complete performance specification and estimate of construction cost may be prepared either in-house or by contracted A/E services.

b) Advertisement. Together with the bidding requirements, contract forms, conditions of the contract and applicable addenda, the preliminary design and complete performance specification comprise the IFB package. The IFB package includes Contract Clauses applicable to both A/E and Construction fixed-price contracts. The IFB package is advertised as a one-step construction contract procurement with bids solicited on a lump sum competitive basis.

c) Contract Award. A fixed price contract award is made to the lowest responsive bid from a responsible bidder. Bidders may be Design/Build firms, joint ventures between A/E firms and general construction contractors or general construction contractors providing design services through a qualified A/E firm. A/E - IFB Preparers cannot be associated with the bidders. A technical design submission from each bidder is not required, however, as part of a pre award survey, the apparent low bidder submits evidence of qualifications of his A/E - Contractor's Design Agent and builder based on specified requirements.

d) Phase A (Design Documents). The successful bidder (Contractor) prepares complete, final design documents in accordance with the terms of the IFB package and submits them in a single submission for review and approval by the Government.

e) Phase B (Government Conformance Review). The Government reviews the Contractor prepared final design documents for conformance to the requirements of the IFB package. In cases where the preliminary design and complete performance specification requirements for the IFB package were prepared by an A/E, this same A/E - IFB Preparer may be contracted to

perform the Government's conformance review and recommend approval of the Contractor's final design documents. Authority to approve the Contractor's final design documents rests with the Contracting Officer.

f) Phase C (Construction). After Government review and approval of the Contractor's final design documents, Government approval to start construction is granted. The NDB process does not entail "Fast-Tracking" construction; approval to start construction is not granted until after the Government has reviewed and approved the Contractor's final design documents.

2.2 History. In 1984, Congress expressed concern over the high cost estimates for relatively simple federal construction projects. Claims were made that the Government's criteria for construction was too restrictive and that the designs for these facilities were over-specified. Subsequently, Congress took special interest in the subject of alternative construction and contracting methods by which costs and time of construction could be reduced without reducing project scope or affecting customer satisfaction with the completed facility. As a result, the Military departments were asked to pursue the use of nontraditional construction techniques for specific projects with the potential for obtaining construction goals at reduced federal expenditures. Specifically, Congress identified the utilization of performance specifications under a one-step design/build procurement for examination. Consequently, the Navy, through NAVFAC, selected a Family Services Center slated for construction at the Naval Education and Training Center (NETC), Newport, Rhode Island as the first building to test the feasibility of such an acquisition. NAVFAC formed an acquisition management team to develop the contractual and technical requirements for the IFB package. The IFB package was completed in 1985 and advertised for construction. The project was successfully constructed and the use of the NDB strategy has since included other facility types of similar nature and scale at various Naval installations. This handbook and the accompanying NFGS-DB-XXXXX series of guide specifications reflect lessons learned and guidance for execution of NDB projects gathered from experiences with these previous projects.

2.3 Comparison to Other Procurement Options. A general comparison of the similarities and differences between the NDB procurement process and other procurement processes is necessary to properly execute and administer NDB contracts. Recognizing these similarities and differences helps to distinguish NDB from other procurement processes and to understand and assess the opportunities offered by NDB.

2.3.1 Procurement Option Characteristics. The construction procurement process begins with design authorization and ends with contract

closeout. It is not unique, but it is tailored for each project. Eight interdependent characteristics can be used to define a particular procurement process. They are: (1) Procurement Strategy, (2) Specification Type, (3) Contracting Method, (4) Contracting Method Variation, (5) Solicitation Type, (6) Solicitation Response, (7) Contract Type and (8) Award Basis. Figure 1 illustrates each of these characteristics and compares the NDB construction procurement approach with other common procurement options.

NAVFAC Headquarters should be consulted for information regarding other procurement options not illustrated in Figure 1, such as Packaging, Evaluated Total Cost Method (ETCM), Partnering and special strategies for Unspecified Minor Construction (UMC) and small projects.

2.3.1.1 Procurement Strategies. There are two possible procurement strategies - traditional separation of contracts for design and construction (Traditional Strategy or Design/Bid/Build) and one contract for both design and construction (Design/Build Strategy). In the Traditional Strategy, a designer develops a program based on the customer's needs, then fully designs and details a solution to those requirements. Contractors bid competitively and the Contractor placing the lowest bid on the prescribed solution is awarded the contract. In the Design/Build Strategy, a designer expresses customer requirements by way of a preliminary design and a performance specification. Contractors submit bids or proposals which reflect their own design solutions based on the requirements of the performance specification and award may be made to the lowest bidder or the bidder submitting the proposal most advantageous to the Government. The Contractor receiving the award then prepares and submits final design documents for approval by the Government which are then used for administering the construction of the facility.

2.3.1.2 Specification Type. The specification type is determined by the choice of procurement strategy. The Traditional Strategy uses a prescriptive specification while the Design/Build strategy uses a performance specification. A prescriptive specification completely defines the project requirements and contains specific requirements which describe materials, products, systems, sizes, ratios, fabrication, quality of workmanship, method of installation, etc. Options are frequently permitted but are limited to those included in the specification; little discretion is left to the Contractor. Conversely, a performance specification describes the requirements for an end product and allows the Contractor to decide how to meet them. Performance specifications contain functional and aesthetic requirements for materials, products and systems which must be met and criteria for verifying compliance, but do not contain unnecessary limitations for selecting materials, products, or systems which will meet the specified requirements.

2.3.1.3 Contracting Methods. There are two contracting methods - sealed bidding and negotiation. They are differentiated by Solicitation Type, Solicitation Response and Award Basis. The Traditional Strategy uses the sealed bidding contracting method while the Design/Build Strategy uses either sealed bidding or negotiation. In sealed bidding, discussions are not needed and award is to the lowest responsive bid from a responsible bidder. In negotiation, discussions are needed to determine which proposal is most advantageous to the Government.

PROCUREMENT OPTIONS

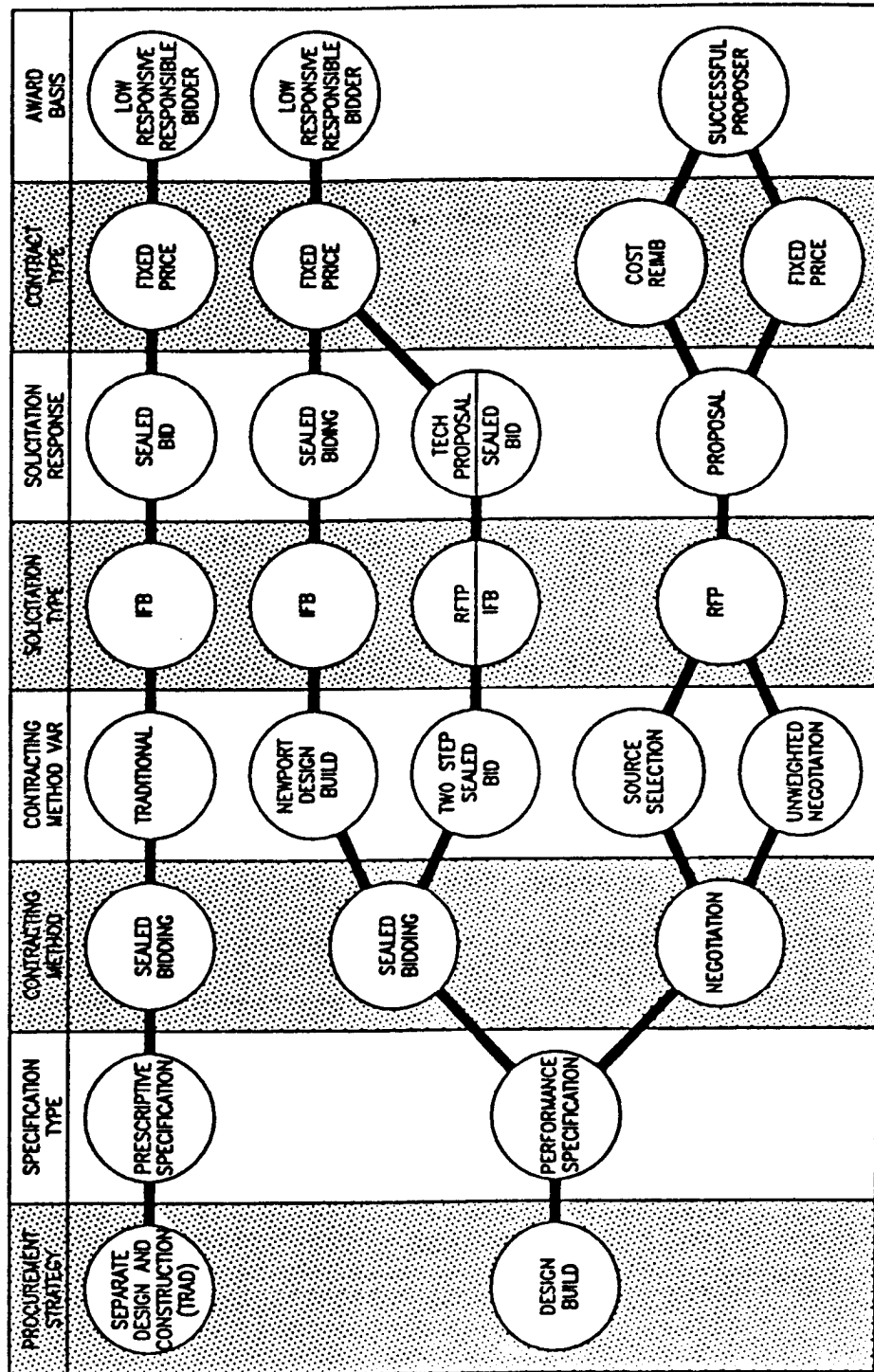


Figure 1
Procurement Options

2.3.1.4 Contracting Methods Variations. The Design/Build Strategy uses contracting method variations. In the NDB approach, award is strictly based on the lowest responsive bid from a responsible bidder. NDB does not involve the submission of technical proposals from the bidders; the successful bidder (Contractor) prepares design documents after contract award. In Two Step Sealed Bidding, technical proposals and bids are submitted in two distinct steps. It is a hybrid procurement method incorporating Design/Build strategy with the competitive bidding procedure of formal advertising for a fixed price. Bidding is limited to Contractors with approved technical proposals. Source Selection (sometimes called One-Step Competitive Negotiation) uses competitive evaluation of proposals using a weighted system of evaluation factors, including price and technical quality. Evaluation involves an in-depth assessment of the proposal and the offeror's ability (management expertise, qualifications, etc.), as conveyed by the proposal, to successfully accomplish the prospective contract. Proposals are evaluated solely on the factors specified in the solicitation. Price and technical evaluations may involve one or more professionals depending on complexity. In Unweighted Negotiation, the evaluation of proposals does not involve a weighted system of evaluation factors.

2.3.1.5 Solicitation Type and Solicitation Response. The Solicitation Type determines the offerors' responses. The response to an Invitation for Bids (IFB) is the offeror's bid price for doing the work. The response to a Request for Technical Proposal (RFTP) is the offeror's idea of how to do the work without reference to price, and evaluation is for technical acceptability, compliance with the RFTP and may involve discussions with the offerors. Offerors of acceptable technical proposals are then invited to submit sealed bids. The response to a Request for Proposal (RFP) is the offeror's price and an idea of how to do the work, and evaluation determines award based on price or price and other factors and may involve discussions with the offerors. RFTP's and RFP's state project requirements and criteria as well as evaluation factors. They provide the information and framework necessary for Contractors to develop technical and price proposals for the Government to evaluate competitively. Negotiations may not be required, but if conducted, focus on resolving proposal deficiencies.

2.3.1.6 Contract Type. The Contract Type is defined by how the Contractor is paid. Fixed-price and cost reimbursable are the two Contract Types used for construction. Both Contracting Methods can use a fixed-price contract type, but only negotiations can result in a cost reimbursable Contract Type.

2.3.1.7 Award Basis. Award Basis refers to how offers are evaluated.

In the sealed bidding Contract Method award is made to the lowest responsive bid from a responsible bidder, but in the negotiation Contract Method award is made to the successful proposer who submits the most advantageous proposal (i.e., the one offering the best value to the Government) considering price and other factors, such as technical quality, proposer qualifications, management expertise, life-cycle costs, aesthetics, etc.

Section 3: CHOOSING NDB

3.1 General. NAVFAC encourages and promotes the use of alternative construction and contracting strategies when their use is consistent with Federal Acquisition Regulations (FAR) and the results are expected to be advantageous to the Government. Accordingly, the NDB procurement approach should be given serious consideration over the Traditional Strategy for facility procurement for projects meeting the criteria specified herein. The NDB process is not intended to supplant the Traditional Strategy for facility procurement; it is merely another method for the acquisition of facility construction.

3.2 Authority. Unlike some other forms of alternative construction and contracting strategies, the authority to select the NDB approach for a particular project rests with the NAVFAC Engineering Field Division or Engineering Field Activity (EFD/EFA), specifically, the EFD/EFA Acquisition Departments. NAVFAC Headquarters approval to use NDB is not required. However, consultation with appropriate NAVFAC Headquarters personnel as well as with facility customers is highly recommended before making the ultimate decision to use NDB for a particular project. In addition, the Northern Division (NORTHDIV) of NAVFAC has substantial experience with the use of NDB on various facilities. Both NAVFAC Headquarters and NORTHDIV can provide valuable insight and assistance with regard to the contractual, administrative and technical implications of NDB.

3.3 When to use NDB. Choice of a procurement strategy depends on the problem to be solved and requires trade-offs of cost, time, risk and effort. Deciding on the use of the NDB process as the proper procurement strategy for a particular project requires:

- a) Weighing the advantages and disadvantages of NDB, and
- b) Consideration of specific project characteristics.

3.3.1 Advantages/Disadvantages of NDB. An understanding of the advantages and disadvantages of NDB in comparison to other procurement strategy options is necessary as a first step in the decision to use the NDB approach for a particular project. The NDB process involves advantages and disadvantages to all participants in the facility acquisition process in terms of administration and organization, quality, cost and time. These participants include Government personnel (EFD/EFA office and field personnel (Resident Officers in Charge of Construction (ROICCs)) and facility customers/users), A/Es - Contractor's Design Agents and the building industry at large (general contractors, subcontractors, construction managers and product manufacturers).

3.3.1.1 Advantages of NDB versus Traditional Strategy

a) Advantages to the Government

1) Unlike the Traditional Strategy, under the NDB process the Government can hold one party accountable for the quality of both design and construction. Except for those portions of the contract which may be fully designed by the Government in the IFB (eg., sitework), the Contractor assumes responsibility for a totally integrated and constructable design, serving as both the designer of record and builder of the project. Resolution of design errors and omissions are therefore the responsibility of the Contractor, not the Government, and must be corrected at the Contractor's expense. Consequently, the potential for field change orders and claims due to design errors and omissions is minimized, reducing overall Government contract administration and construction costs. Change orders required due to customer requests or deficiencies in the IFB documents can often be handled during Phase A of the contract with no impact (delay) to the construction schedule. Time typically spent by EFD/EFA and ROICC personnel preparing contract modifications to resolve conflicts in responsibility between the Government and the designer and between the designer and the Contractor is effectively eliminated. Time spent by the Government pursuing design error liability with the A/E is also eliminated. In addition, once the Contractor's design has been approved by the Government (conclusion of Phase B), the Government can consider Contractor proposed changes to the construction documents and, if appropriate, issue approval via contract modifications, however, the Government is under no obligation to offer additional reimbursement for such modifications.

2) The Contractor's assumption of responsibility for both design and construction under the NDB process fosters teamwork within the Contractor's organization. Because the Contractor is responsible for both design and construction, it is easier to ensure that the original design intentions are being incorporated into the facility as constructed and that construction expertise and considerations for quality and constructability are incorporated into the design process, since many aspects of a facility's design depend on a working familiarity with construction activities and techniques. This mutual sharing of expertise and efficiencies among designers and constructors translates into speedier construction and decreased costs, benefits to both the Government and the Contractor. Thus, it is in the Contractor's best interests to assure that the design and construction aspects of the contract meet the IFB requirements and are fully coordinated.

3) The time required to prepare the IFB package is shorter than preparing complete design documents for a project as required by the

Traditional Strategy. Consequently, the NDB process results in the faster obligation of construction dollars. This can be of significant benefit on projects with expiring funds where there is not enough time to fully design the facility before making a construction contract award.

4) In preparing his design documents, the Contractor specifies brand name (proprietary) building products in response to meeting the requirements of the IFB. The specification of brand name products results in very simple and straightforward drawings and specifications and a more expeditious construction submittal approval and field inspection process for both the Contractor and ROICCs. In addition, because the IFB specifications are performance-based, the Contractor can also specify new sole source building products. Therefore, because new building technologies generally appear on the market as sole source products, the Government can take advantage of innovations and improvements which may not otherwise be accessible when using edited versions of prescriptive, yet generic, guide specifications tailored around industry standards when soliciting for construction in the Traditional Strategy. The Traditional approach, in general, discourages the consideration of alternative materials and methods in a prescriptive facility design. Thus, the NDB process makes it easier to incorporate new products which may enhance the quality of the facility or reduce project costs.

5) There is far less likelihood of receiving bids which exceed the funding available for the project in the NDB process than in the Traditional approach. In fact, experience with NDB has repeatedly resulted in bids below the Government estimate. While both strategies utilize an IFB format with award based on the lowest responsive bid from a responsible bidder, only the performance specification format of the NDB approach allows the Contractor to choose the most economical materials, methods and means to meet the Government's requirements. Thus, under the NDB process, price competition is achieved among a wide range of alternative systems and products. This translates into cost savings for the Government, meeting Congress's original intent of providing construction meeting the Government's requirements at the lowest possible cost. Conversely, the prescriptive specifications used in the Traditional procurement strategy limit the Contractor's ability to choose more economical alternative materials, methods and means of construction to meet the Government's needs and requires greater accuracy in the Government estimate because the bidders' choices are limited. Since the accuracy of any Government estimate is a function of the estimator's experience and familiarity with the facility being designed and with the economic climate in the local community at the time of bidding, the Government estimate is governed to a great extent by cost information which contains an unknown margin of error.

Thus, the probability of excessive bids on prescriptive designs is higher, with possible results being delays to the project for redesign and readvertisement.

6) Once an NDB IFB performance specification has been developed for a facility type, it can be reused with relatively little modification in subsequent procurements of the same building type. Design costs and times will thus be reduced. In addition, when comparing the reuse of an NDB IFB package for a particular facility type to site adapting a conventional previous design for a facility type using a Traditional Strategy procurement, the performance specification format of the NDB approach offers the opportunity to site adapt without necessarily building the exact same design. Past experience with utilizing the same NDB IFB package for the same building type at three different locations resulted in three unique building designs.

b) Advantages to A/Es - Contractor's Design Agents

1) Under the NDB process, the A/E - Contractor's Design Agent is not faced with the possibility of redesign at his own expense due to involvement with varying Government reviewing components nor due to excessive bids. With the possible exception of aesthetic issues, Government review comments during the design phase of the contract are limited to compliance issues and do not contain personal preference. The IFB package represents the only criteria for design of the facility; designs meeting the requirements of the IFB will be approved for construction. In addition, close coordination of design efforts with the Contractor will assure that the design stays within the price bid.

2) In working directly with a construction Contractor in the NDB process, the A/E - Contractor's Design Agent gains firsthand knowledge and experience in construction activities, procedures and techniques. The A/E - Contractor's Design Agent also gains expertise in working with performance-based specifications.

3) In the Traditional Strategy, an A/E designs a project to conform to Government furnished criteria, which may differ from private industry standard criteria. With a few exceptions, the NDB IFB technical requirements are tailored to local building codes and industry standards. Thus, producing a design meeting the requirements of the NDB IFB package does not require the A/E - Contractor's Design Agent to gain familiarity with unique Government criteria. Since A/Es are typically more familiar with providing designs conforming to local criteria, there is less chance that redesign will be required in order to conform to the IFB requirements.

c) Advantages to the Building Industry

1) The use of performance specifications in the NDB process provides the Contractor more flexibility to value engineer the design upon which his bid price was based. During Phase A of the contract, the Contractor can consider and incorporate alternative cost-saving products and systems meeting the requirements of the performance specifications with no need to secure Government approval. In addition, the resultant cost-savings belong solely to the Contractor. In the Traditional Strategy, the Contractor must assume all efforts and risks when initiating value engineering change proposals for approval by the Government with no guarantee of a return on investment. Even when such modifications are accepted by the Government on a Traditional contract, resultant cost-savings must be shared between the Contractor and the Government.

2) Brand name (proprietary) and new sole source building systems and products can be considered in response to the NDB IFB technical requirements. Manufacturers and suppliers of such systems and products can therefore participate in the bidding process.

3.3.1.2 Disadvantages of NDB versus Traditional Strategy

a) Disadvantages to the Government

1) The Traditional Strategy for facility acquisition is the approach most commonly used by the Government. Accordingly, participants are familiar with their respective roles, administrative and contractual relationships and the governing procuring regulations. The NDB approach requires that participants familiarize themselves with the unique administrative, contractual and technical aspects of the NDB approach. When EFD/EFA experience with NDB is non-existent or limited, this learning curve may require considerable devotion of time and resources and possibly negate some of the potential advantages and benefits of utilizing the NDB process.

2) For military construction projects, the funding and activities cycle is most consistent with the Traditional design/bid/build approach. Design and construction activities are funded and executed separately. If construction funds are not appropriated as anticipated, designs can be saved and used in subsequent fiscal years with little additional cost or effort. In the NDB approach, the IFB package can be reused if construction funds are not obligated, but the obligation of construction funds is necessary in order to complete the design effort for an NDB project.

3) In terms of quality, the Traditional approach allows the

Government to select an A/E through a process that carefully examines experience and past performance in the design of similar projects and building types. Quality of work is a prerequisite to selecting an A/E for a facility's design. In fact, quality of work is the primary criterion for A/E selection. In the NDB approach, the IFB package contains criteria governing the minimum qualifications and experience of the A/E - Contractor's Design Agent, but ultimate selection of a designer rests with the Contractor, not the Government. Only the apparent low bidder is obligated to submit evidence that his design agent meets the requirements of the IFB. Thus, the Government is not afforded the opportunity to compare designers and choose an A/E based on quality of work as evidenced by past performance.

4) In terms of quality, the Traditional approach permits facility customers/users to examine facility designs in detail throughout their development before a commitment to construction. The NDB strategy requires that facility customers/users approve facility requirements as expressed by the IFB package, i.e., the schematic level drawings and performance specifications. In the NDB approach, facility customers/users must be sure that scope and functional requirements for the facility are properly addressed in the IFB package before advertisement. Customer requested changes after award of the NDB contract can be much more costly than the same changes made during the design phase in the Traditional Strategy.

5) Design and construction quality is contingent on the correctness and completeness of the performance-based design and specification IFB documents. If a particular element of the facility is specified improperly in terms of desired performance or quality, Contractor proposed design solutions will result in unsatisfactory performance for the facility.

b) Disadvantages to A/Es - Contractor's Design Agents

1) In the NDB strategy, the A/E - Contractor's Design Agent may not have a direct contractual relationship with the Government. Traditional contracts between the Government and A/E describing the scope of services, responsibilities and liabilities are well defined and generally well understood. When A/E services are provided through a construction Contractor, such contractual aspects may not be clear and satisfying the interests of both the Government (owner/user) and the Contractor (payment source) may result in conflicts not normally encountered in the traditional A/E-Government relationship.

2) Unlike the NDB approach, the A/E's performance is directly evaluated by the Government in the Traditional Strategy. The traditional

strategy enables the A/E to specialize in a particular type of work and to establish expertise in a specialty. Providing quality design work through a traditional contract with the Government gives the A/E reasonable assurance of continued consideration for future Government projects.

c) Disadvantages to the Building Industry

1) Bidding an NDB project requires that bidders have design and engineering capabilities in-house or acquire them on a project-specific basis. Construction Contractors, particularly smaller or disadvantaged businesses, may find this arrangement logistically or financially burdensome and, therefore, may be discouraged from participating.

2) The NDB process requires that the Contractor assume responsibility and liability for both design and construction. Resolution of design errors, omissions, and conflicts is the responsibility of the Contractor. Costs associated with correcting such design deficiencies must be borne by the Contractor, regardless of whether or not such deficiencies constitute negligence on the part of the A/E - Contractor's Design Agent.

3.3.1.3 Advantages of NDB versus other Design/Build Strategies

a) Advantages to the Government

1) Unlike procurement strategies which utilize an RFP or RFTP approach, the utilization of an IFB format under the NDB strategy ensures the lowest cost to the Government for a design which meets the minimum requirements of the IFB package. Since award is based on price only, the Contractor selection process is simple and fast. Since there is no need to establish proposal evaluation boards, the administrative cost and overhead expense to the Government is minimal. In addition, the Government avoids any claims by proposers of favoritism or lack of complete objectivity when awarding the contract.

2) Since the Contractor's cost, effort and risk associated with bidding an NDB IFB is less than that associated with responding to an RFTP or RFP, there is more likelihood of receiving a greater amount of Contractor interest in a project advertised as an NDB IFB than in the same project solicited as an RFP or RFTP. Thus, the likelihood for delays for readvertisement due to an inadequate number of proposals/bids is less.

3) Unlike other design/build strategies, authority to use the NDB process rests with the EFD/EFA; NAVFAC Headquarters approval is not required.

b) Advantages to A/Es - Contractor's Design Agents

1) Since no technical submissions prior to contract award are required, the A/E's cost to respond to the NDB IFB package is much less. Resources invested by the A/E in responding to the IFB are similar to those required under a standard contract for design services.

c) Advantages to the Building Industry

1) Bids on an NDB IFB package can be prepared without the requirement for a technical submission. Furthermore, unsuccessful bidders do not have to absorb the cost to develop technical proposals.

3.3.1.4 Disadvantages of NDB versus other Design/Build Strategies

a) Disadvantages to the Government

1) Unlike the Source Selection process, no technical submissions are required from the bidders in the NDB process. In addition, time and resources limit the number of alternative solutions which each bidder can consider during the bidding period and, since award is based strictly on price (low bid), there is no incentive for a bidder to consider design solutions in excess of the IFB requirements. Like the Traditional approach, the quality of work of the successful bidder in the NDB process will reflect the minimum acceptable levels of quality required by the IFB package. Thus, the Government does not have the opportunity to examine and compare alternative designs prior to construction contract award nor to give credit to design alternatives offering more optimal solutions. Since award is made on the basis of best overall value to the Government and not on low initial cost alone, the Source Selection process enables the Government to consider a wide range of design solutions representing various increments of cost and quality prior to contract award.

2) Unlike the NDB IFB format, Design/Build Strategies using an RFP or RFTP format enable the Government to identify the maximum construction contract amount available for the project in the solicitation. Thus, since proposers/bidders are aware of the funding level, the need to readvertise due to high bids is minimized. In addition, other Design/Build Strategies may enable the Government to include life-cycle economies in the contract award mechanism, rather than basing contract award solely on lowest initial cost.

3) Other forms of design/build procurements may lend themselves to "fast-tracking" construction, i.e., starting construction before the design is complete. However, unlike design/build procurements utilizing an RFP or RFTP format where the submission of technical proposals prior to

contract award is required, fast-tracking in the NDB process is not permitted because the Government is not privy to the Contractor's design intent for all building systems prior to contract award. Therefore, Government approval of piecemeal design submissions for the sake of fast-tracking construction is difficult and risky in an NDB contract. Partial design elements cannot be seen in total context to the complete design and their approval can result in less than optimal design solutions. In addition, approval to start construction prior to the approval of a complete design submission in an NDB contract means that construction progress payments must be made while design progresses; such payments would certainly exceed 2-1/2 percent of the contract price, effectively negating the Government's option to terminate the contract for 2-1/2 percent of the contract price in the event that the design when complete does not satisfy the Government's functional and aesthetic requirements (see NFGS-DB-01010, "Summary of Work").

b) Disadvantages to the Building Industry and A/Es - Contractor's Design Agents

1) An RFP type procurement offers the potential to have the Government recognize and reward design qualities exceeding the specified minimum requirements of the RFP. Proposers can incorporate higher quality items into their proposals without necessarily being placed at a competitive disadvantage because of increased cost. Proposers have the opportunity to use quality as a competitive advantage in addition to cost.

2) An RFP type procurement enables individual proposers to submit multiple proposals representing various increments of cost and quality tradeoffs. Thus, Contractors can increase their chances for a contract award.

3.3.2 Project Characteristics to Consider in Choosing NDB. In addition to weighing the advantages and disadvantages of NDB, consideration must be given to specific project characteristics before making the ultimate decision to use NDB as the procurement strategy for a particular facility. To determine whether the use of NDB is the most advantageous procurement approach for a particular project requires that various factors be considered. The factors considered critical to selecting NDB as the most appropriate procurement strategy are as follows.

3.3.2.1 Special Project Goals and Objectives. Directives or policies initiated at NAVFAC or higher levels of authority may impose special goals and objectives for a project. Such directives may explicitly make the use of NDB mandatory or may contain language which indirectly suggests the use of NDB. Special project goals and objectives which may suggest the use of NDB as the appropriate procurement approach are as follows:

- a) A requirement related to expanded competition or consideration of alternative construction methods.
- b) A requirement to stimulate design or construction innovation.
- c) A requirement to rely on private construction market standards, practices, and methods.
- d) A requirement to minimize construction costs and maximize design and construction efficiencies.

Conversely, the traditional strategy is usually more appropriate when the exact detailed design and construction requirements are known or desired, there is reasonable confidence in construction cost estimates, there is a reasonable expectation of competition and there is no need to accelerate the procurement schedule.

3.3.2.2 Building Type. NDB is best suited for projects involving new buildings which have a direct commercial counterpart, i.e., facility types that the construction industry can readily relate to and easily translate the specified performance criteria into actual construction. This promotes maximum bidding interest and minimum costs. For the most part, these types of facilities are low risk, routine, general purpose type buildings whose functional, design and construction requirements can be clearly expressed through references to private construction market criteria, standards, practices and methods (i.e., local building codes and industry standards) and are easily understood by private design and construction professionals. With a few exceptions, they are facilities whose quality and level of technical performance required to meet Government standards is similar to the quality and level of technical performance of comparable buildings in the private sector. Such facilities typically include few, if any, Government or customer unique design and construction requirements; they do not require that the Contractor have or procure special design or construction expertise. Examples of such facilities are:

- a) Community Support Facilities (eg., community centers, fire stations, police stations, child development centers, chapels, retail stores, banks, credit unions, family services centers, gymnasiums, swimming pools, recreation buildings, youth centers, libraries, etc.)
- b) Administrative offices
- c) Academic instruction buildings (general classrooms)
- d) Bachelor Enlisted Quarters, Bachelor Officers' Quarters, Lodges and Reserve Centers

- e) General Warehouse/Storage Buildings (Non-hazardous/Non-flammable)
- f) Gas stations, general vehicle repair garages and parking garages
- g) Buildings with repetitive design features, repetitive buildings or buildings which will be repeated in the future

Conversely, high risk, complex, non-routine, special purpose facility types with unique user criteria requiring specialized design or construction expertise are typically best suited to the traditional method of procurement or a design/build procurement utilizing Two-Step Sealed Bidding or Source Selection procedures. Such procedures enable the Government to establish and see critical design elements prior to commitment to a construction contract award. Additionally, projects involving building rehabilitation, adaptive reuse or historic preservation suggest the use of the traditional approach, except that NDB may be appropriate for rehabilitation projects involving either complete "gutting" of the building or the complete removal and replacement of entire building systems (eg., roofing, HVAC, electrical, etc.).

3.3.2.3 Building Scale. NDB is best suited to small scale, one story facilities of the types recommended herein. Although larger buildings could be procured via the NDB strategy, most building types best suited for the use of NDB are, by function, typically small and only one story. In addition, keeping to a small scale simplifies the specification of performance characteristics for the building, eliminating the need to deal with such concerns as special structural considerations, expansion joints, additional fire protection measures (eg., smoke hatches, firestopping, etc.), vertical transportation, sophisticated environmental controls, etc. In keeping with this philosophy, the NDB performance guide specifications have been developed specifically for new, small scale, one story facilities. However, the individual technical performance specification sections do contain guidance to the editor concerning additional performance criteria which may have be considered and addressed when adapting the guide specifications for use on larger or multi-storied buildings.

3.3.2.4 Building Quality. The bids received in response to an NDB IFB can be assumed to represent each bidder's estimation of the lowest possible price for the design and construction of a facility meeting the minimum quality and levels of performance required by the IFB package. Thus, the NDB approach is appropriate for projects where a variety of products and methods are available for use in obtaining the required performance, but the lowest possible

construction cost is a primary influence on the project and meeting the minimum specified levels of performance will result in a totally satisfactory facility. Accordingly, it is critical that the IFB performance specifications completely and accurately describe the minimum qualities and levels of performance required. On the other hand, in terms of levels of quality, certain projects may be better suited to other forms of procurement. The traditional approach is best suited to projects where a specific level of quality is desired and where the means and options to achieve the required performance are limited. Where a variety of products and methods representing a range of quality levels are available for use in achieving the required performance, yet it is desirable or advantageous to provide qualities above the specified minimum requirements, then an RFP approach may be more appropriate. Such an approach permits the comparison, evaluation and grading of proposals for overall value, not just lowest price, thereby giving credit to more preferred design solutions offering features which exceed the specified minimum requirements.

3.3.2.5 Site Constraints. In most cases, project site constraints do not have an impact on the choice of procurement strategy; such constraints will affect design and construction in the same way regardless of the procurement approach used. However, sites which are remote or isolated in terms of proximity to an active, competitive construction market (i.e., A/E services, labor, materials supply, fabricators and installers and transportation) or which impose extraordinary conditions on design or construction (eg., topography, environmental conditions, natural features, utilities, etc.) may suggest that the project should be procured via a traditional approach rather than via NDB.

3.3.2.6 Project Design and Construction Schedule. As mentioned previously, NDB can be appropriate for projects with a late design start or compressed design schedule coupled with a need to quickly obligate construction dollars. This is particularly true on projects where original design documents need to be developed yet the time allotted for design would preclude the development of complete final design documents. However, use of NDB does not necessarily result in faster occupancy of the completed facility than use of a traditional procurement approach. This is because completion of the design effort after construction contract award is still necessary before construction can commence. Nonetheless, past experience with the NDB process has, in fact, resulted in the actual occupancy of completed facilities before scheduled dates because of the economies inherent in having one party responsible for design and construction (i.e., less delays due to change orders, less design/construction conflicts, etc.). In addition, it is expected that the standardized guidance and procedures provided by this military handbook and the accompanying NDB performance guide specifications will expedite preparation of NDB IFB packages for appropriate projects and assure more efficient contract administration, resulting in faster facility occupancy.

3.3.2.7 EFD/EFA Capabilities and Experience. EFD/EFA capabilities and experience in administering NDB contracts should be considered when deciding on the use of NDB for a particular project. EFDs/EFAs with little or no prior experience with NDB will need to familiarize themselves with its unique technical and administrative aspects. Close coordination among EFD/EFA personnel, ROICCs and customers is essential to the success of the NDB process. When considering its first NDB contract, the EFD/EFA should be cognizant of the time and costs associated with this learning curve. While lack of experience in the use of NDB may negate some of its potential benefits for a particular project in terms of time and cost savings, this should not in and of itself call for the abandonment of the NDB approach in favor of the Traditional Strategy. Only if the EFD/EFA anticipates severe problems in identifying the appropriate management and administrative resources should consideration be given to using the Traditional approach for a project which would otherwise be an ideal candidate for procurement via NDB.

3.3.2.8 Design and Construction Industry Capabilities and Experience. Consideration should be given to the extent to which the local design and construction industry is capable of and interested in completing the design and construction of a project under the NDB approach. Consider the following:

- a) Extent of local design and construction activity. NDB contracts may not be attractive to a design and construction industry otherwise rife with traditional work.
- b) Recent bidding experience. Sometimes bid participation and competition on Government projects is low and pricing high despite a relatively inactive construction market. In such cases, advertisement of an NDB contract may help increase the range of bidder interest.
- c) Is design/build practiced in the region? Through communications with local professional associations, industry trade associations, A/E publications and construction industry publications, the EFD/EFA should establish a mechanism to gauge and evaluate the local design and construction industry's capabilities and interest relative to NDB type contracts. This is to ensure adequate participation and competition in the procurement as well as successful design and construction of the project with respect to cost, time and quality.
- d) Will the timing of the project's advertisement affect participation in the procurement? Will seasonal activity in the private construction industry encourage or discourage bid submission, design and construction of the project? Where climate affects construction activity, NDB contracts are, as a general rule, best advertised in the fall. This means that the bidding period occurs when contractors are scheduling

startup work for the following spring, and the design phase of the contract occurs when contractors are the least busy with ongoing work. i.e., in the wintertime.

Section 4: PREPARATION OF THE IFB PACKAGE

4.1 General. This section contains guidance and direction for preparation of NDB IFB documents, including bidding requirements, contract forms, conditions of the contract, drawings and specifications. This section also contains guidance for preparation of related construction cost estimates (Government estimate for construction) and design analyses. Some of the services and tasks necessary to produce NDB IFB documents are the same as those necessary to produce the same documents for a project to be advertised in the Traditional procurement strategy. Other services and tasks require that the preparer familiarize himself with unique requirements of the NDB process. It is assumed that the readers are familiar with actions necessary to produce bidding documents in the Traditional fashion. Accordingly, detailed guidance and direction has been provided only for those tasks and services which distinguish NDB from the Traditional method of facility procurement.

4.2 Method of Accomplishment (MOA). As with projects advertised in the Traditional Strategy, the bidding requirements, contract forms and conditions of the contract for an NDB IFB package are, for the most part, assembled and prepared by the Government (in-house). The NDB IFB technical documents (drawings and specifications and related construction cost estimate and design analyses), however, may be prepared either in-house or by A/E contract (A/E - IFB Preparer). The decision to conduct work in-house or by A/E contract should be made on the same basis as in a conventional design project. In addition to the usual considerations of EFD/EFA workload, experience with the facility type, and so on, consideration should be given to factors such as experience with NDB procedures, familiarity with industry standards and local or model building codes, experience with performance-based construction specifications, and knowledge of the local construction community and its capabilities.

4.2.1 A/E Preparation of NDB IFB Technical Documents

4.2.1.1 Advertisement for A/E - IFB Preparer Services. An announcement for A/E - IFB Preparer services should be placed in the Commerce Business Daily (CBD). As with traditional procurements, the CBD announcement should include a basic description of the project and related technical requirements. In addition, the CBD announcement should include the following:

a) After the description of the project, include wording to the following effect:

"The Government intends to procure this project via a Design/Build strategy. Accordingly, the basic contract will require preparation of a

preliminary design and complete performance specification. Basic contract tasks may include site investigation services, complete site design, schematic facility design, interior design, specification preparation, preparation of a construction cost estimate and preparation of limited design analyses. A pre-priced option for Post Construction Contract Award Services may be exercised at the discretion of the Government. Such services may include attendance at meetings with the Contractor, review of the Contractor's proposed design, review of construction submittals and consultation services. Options for general supervision and inspection services and environmental quality assurance monitoring and inspection services may also be exercised by the Government. The selected A/E is prohibited from bidding the Design/Build contract."

(Note: The option for environmental quality assurance monitoring and inspection services should be included for projects involving asbestos or lead paint/contamination removal work.)

b) The significant evaluation factors should include A/E experience and expertise in the preparation of Design/Build performance specifications and familiarity with industry standards, local or model building codes and the local construction community and its capabilities.

The wording listed above assumes that the CBD announcement is for engineering and design services for a single specific project. New and existing indefinite quantity A/E contracts may also be utilized for preparation of the technical NDB IFB documents provided similar wording is or has been included in the CBD announcement for such a contract.

4.2.1.2 A/E - IFB Preparer Scope of Work. Appendix A illustrates those Engineering and Design Services (Sections A and B services respectively in the A/E fee proposal form (NAVFAC 4 - 11012/TF - 2 (4-82))) comprising the level of effort required to produce the technical documents for a typical NDB IFB package. Although not related to the preparation of the NDB IFB package, for convenience, Appendix A also indicates those Post Construction Contract Award Services (Section C services of the A/E fee proposal form) and Supervision and Inspection Services which would be appropriate for inclusion in the A/E - IFB Preparer's scope of work. All of these services are those which typically would apply to the types of facilities appropriate for procurement via the NDB process as recommended herein. Other additional services or modifications to the level of effort required for the services listed may be necessary to suit specific project requirements. Appendix A also indicates the final degree of completion required for each service and indicates whether the effort required is the same as in a Traditional procurement approach or is unique to the NDB process. Where services are unique to the NDB process, Appendix A indicates where further instructions for preparation or execution may be found. For Government review and approval purposes, appropriate personnel at the EFD/EFA

should determine the number, composition and schedule of interim submissions of the A/E prepared NDB IFB package needed based on project requirements.

4.2.2 In-House Preparation of NDB IFB Technical Documents. The types of engineering and design services necessary to produce NDB IFB technical documents in-house are the same as those listed in Appendix A for A/E preparation. However, as with projects designed in-house in the traditional fashion, EFDs/EFAs may find it necessary to utilize an A/E contract for site investigation services (topographic survey, soil borings, etc.).

4.3 Bidding Requirements, Contract Forms and Conditions of the Contract. NDB bidding requirements, contract forms and conditions of the contract are prepared and assembled using NFGS documents. (Note: As previously mentioned, this task is typically performed by Government personnel at the EFD/EFA. However, some EFDs/EFAs may find it convenient to procure assistance from the A/E - IFB Preparer when preparing certain portions of these documents. In such a case, the A/E - IFB Preparer's scope of work listed in Appendix A should be modified accordingly.) These documents consist of a mixture of edited versions of basic NFGS documents typically used for Traditional procurements and edited versions of NFGS documents which have been specially developed for use on NDB procurements (NFGS-DB-XXXXX documents). The following NFGS documents are used for NDB projects:

<u>Document</u>	<u>Document Title</u>	<u>Description</u>
00001	Title Page	Basic NFGS
00020	Solicitation (Form 1442, with Solicitation portion completed)	Basic NFGS
00021	Table of Contents	DB-NFGS
00100	Instructions to Bidders	Basic NFGS
00120	Supplementary Instructions to Bidders	DB-NFGS
00130	Pre-Bid Conference/Site Visitation	DB-NFGS
00220	Geotechnical Engineering Data	DB-NFGS
00401	Representations and Certifications for Contracting by Sealed Bid	Basic NFGS
00500	Solicitation, Offer and Award (Award Portion) (Signed Form 1442; not included in the bidding package)	Basic NFGS
00501	List of Drawings	DB-NFGS
00600	Bonds and Certificates	Basic NFGS
00710 or	Contract Clauses, FAR 52.202 Through 52.228	Basic NFGS

00720	(Full Text or By Reference)	
00711	Contract Clauses, FAR 52.229	Basic NFGS
or	Through 52.252	
00721	(Full Text or By Reference)	
00715	Contract Clauses for Overseas	Basic NFGS
	(if applicable)	
00810	Modifications to Contract Clauses	DB-NFGS
00820	Additional Contract Clauses	DB-NFGS
00830	Davis-Bacon Wage Determination	Basic NFGS

A brief synopsis and background on the special NDB provisions included in the NFGS-DB-XXXXX documents listed above is as follows:

a) NFGS-DB-00120, "Supplementary Instructions to Bidders". Special NDB provisions include the conducting of a pre-award survey to determine the apparent low bidder's design and construction qualifications and experience. Unlike Traditional procurements, successful completion of an NDB contract requires that the Contractor possess fundamental, yet professional, design abilities in addition to basic construction expertise. Accordingly, the purpose of the pre-award survey in NDB contracts is to determine responsiveness and responsibility of the apparent low bidder through verification of his design and construction capabilities and credentials. It assures that the apparent low bidder is cognizant of the need for both design and construction expertise to properly execute the contract and that he has arranged to provide such services through qualified individuals prior to contract award, thereby assuring a coordinated, timely work effort. The information is requested only from the apparent low bidder; it is not intended to serve as a comparison to other bidders for purposes of contract award. The basis of contract award is solely the lowest responsive bid from a responsible bidder. See NFGS-DB-01301, "Submittals at Design Completion (Phase A)", for details regarding qualifications and experience requirements for the designer and builder.

b) NFGS-DB-00130, "Pre-Bid Conference/Site Visitation". Special NDB provisions include conducting a pre-bid conference and site visitation. The pre-bid conference gives prospective bidders a better appreciation for the unique requirements of an NDB contract as well as an opportunity to question or confirm particular administrative and technical requirements of the IFB. As with Traditional procurements, bidder attendance at the pre-bid conference and site visit is not mandatory but should be highly encouraged. See Section 5, "Administration of NDB Projects", for information regarding Government administration of the pre-bid conference.

c) NFGS-DB-00220, "Geotechnical Engineering Data". A geotechnical engineering data report for the project site (or an adjacent site) is to be included as an attachment to this section in addition to the illustration of boring logs, probes and corings on the NDB IFB contract drawings (or reference drawings). Although the report is not normally included in the bidding documents for conventionally procured projects, inclusion of the geotechnical engineering data report in the NDB IFB package affords the A/E - Contractor's Design Agent the same information for purposes of design which would be available to an A/E during the design process for a conventionally procured project. The report may contain pertinent information for use by the A/E - Contractor's Design Agent in executing the foundation design which may not be readily apparent from the soils information presented on the NDB IFB drawings.

d) NFGS-DB-00501, "List of Drawings". This section is similar to the basic NFGS document used for Traditional procurements, except that it has been modified to indicate that Contractor prepared and Government approved design drawings and project specifications form a part of the contract in addition to the IFB drawings and specifications.

e) NFGS-DB-00810, "Modifications to Contract Clauses". This document contains modifications to Contract Clauses necessary for the proper execution and administration of NDB projects. Of special note are the following Contract Clause modifications:

1) FAR 52.212-5, Liquidated Damages - Construction - Alternate I. This Clause has been modified to indicate that liquidated damages apply only to Phase C, Construction, of the contract.

2) FAR 52.232-5, Payments Under Fixed-Price Construction Contracts. This Clause has been modified to indicate that no payments for Design Documents (Phase A of the contract) will be made until after the Government has received, reviewed and approved the Contractor's design submittal and schedule of prices. Reasoning for this is presented in NFGS-DB-01010, "Summary of Work". Since the Contractor makes only one complete design submission, partial payments during Phase A, Design Documents, of the contract could later be construed as tacit approval of elements of the Contractor's design which later prove unsatisfactory. In addition, partial payments may hinder the Government's ability to later terminate the contract for non-compliance or aesthetic reasons.

3) DFARS 252.236-7001, Contract Drawings Maps and Specifications. This Clause has been modified to indicate that reproducibles of the IFB drawings will be provided to the Contractor after contract award.

4) FAC 5252.236-9310, Record Drawings. See paragraph 4.6.1 f) for a discussion on modifications to this Contract Clause.

5) FAC 5252.242-9304, Government Representatives. This Clause has been modified to include the designation of a Contracting Officer's Technical Representative (COTR). The Clause explains the COTR's duties, responsibilities and authority relative to the administration of contract Phases A and B.

6) FAC 5252.242-9306, Pre-Construction Conference. See paragraph 4.6.1 a) for a discussion on modifications to this Contract Clause.

f) NFGS-DB-00820, "Additional Contract Clauses". This document adds four Contract Clauses typically applicable to A/E Fixed Price Contracts:

- 1) DFARS 252.227-7022, "Government Rights (Unlimited) (MAR 1979)".
- 2) FAR 52.236-23, "Responsibility of the Architect-Engineer Contractor (APR 1984)".
- 3) FAR 52.236-24, "Work Oversight in Architect-Engineer Contracts (APR 1984)".
- 4) FAR 52.236-25, "Requirements for Registration of Designers (APR 1984)".

In addition, FAC 5252.237-9301, "Substitutions of Key Personnel (AUG 1991)", has been added to require that the Contractor immediately notify the Contracting Officer regarding proposed substitutions of key personnel (designers and builder) identified by the Contractor in Attachment A to NDB IFB specification Section 01301, "Submittals at Design Completion (Phase A)". This clause also stipulates that such substitutions are subject to the approval of the Contracting Officer.

4.4 Criteria for Preparation of NDB IFB Drawings and Specifications

4.4.1 General. Like Traditional procurements, NDB IFB drawings and specifications are the criteria upon which the Contractor bases his bid for construction of the project. As such, the NDB IFB drawings and specifications must be clear and concise. However, since an NDB procurement also involves design effort by the Contractor, the NDB IFB drawings and specifications must also contain or reference criteria upon which the A/E - Contractor's Design

Agent can base his design. Since the time for bidding is limited, design criteria contained or referenced in the NDB IFB drawings and specifications must be that with which the A/E - Contractor's Design Agent would be familiar and upon which the Contractor can readily prepare a bid. Accordingly, the NFGS-DB-XXXXX series of performance guide specifications typically reference local and model building codes and industry standards as criteria for design. NAVFAC criteria used by A/Es in conventional design/bid/build projects is typically not referenced. This not only eliminates the administrative and logistical problems of having to furnish NAVFAC criteria to prospective bidders during the bidding process, but it also minimizes the potential for conflicts and claims which may arise from the need to possibly explain or interpret unfamiliar Government criteria both during bidding and after award of the contract.

On the other hand, adherence to certain NAVFAC prepared design criteria may be necessary to meet the functional requirements of the customer and to assure successful operation of the facility. Therefore, an NDB IFB package must also reflect unique Government requirements in a manner easily understood by the bidders. The succeeding paragraphs explain where and how both NAVFAC and industry standard criteria are applied in the preparation of an NDB IFB package to satisfy both Contractor and customer requirements.

4.4.2 Criteria for Site Design. Many projects require that the Government secure environmental permits (eg., water, storm drainage and sanitary sewage disposal) through various federal, state and local authorities. Securing such permits can require the submission of engineered designs and, in some cases, can involve a lengthy review cycle by the approving agency. To meet these requirements, the site design (civil engineering and exterior mechanical work) in a typical NDB IFB package is prepared the same as for a Traditional procurement and is 100 percent complete, except for exterior electrical work. In many cases, this enables the Government to submit applications for environmental permits in a timely fashion, avoiding possible delay to the construction of the project. Preparing a complete site design as part of the NDB IFB package also enables Contractors to bid the sitework without the need to confirm site aspects through a site visit prior to submitting bids, and it ensures that the input and concerns of the Government customers most familiar with the site (eg., building tenant, Public Works Office, etc.) are obtained and coordinated prior to advertisement for construction. (See paragraphs 4.6 and 4.6.2.1 for further reasoning behind preparing a complete site design for the NDB IFB package.) Accordingly, NAVFAC criteria (design manuals, military handbooks, basic prescriptive NFGS Division 2 - Sitework specifications, etc.) is used as the basis for the site design, and the Contractor bids these elements of the project in a conventional manner. The criteria for bidding the exterior electrical work is the project's edited version of NFGS-DB-16501,

"Exterior Power, Lighting and Communications Systems", a performance specification which references industry standards as criteria. Using a performance specification for this element of the site design puts responsibility for a totally integrated electrical design with one designer, i.e., the A/E - Contractor's Design Agent.

4.4.3 Criteria for Building Design. In general, local and model building codes and industry standards form the criteria for design of the building in an NDB procurement. The NFGS-DB-XXXXX series of performance guide specifications reference such codes and standards, making exceptions where appropriate for increased quality. However, certain aspects of the building's design need to conform to NAVFAC criteria to meet customer requirements and to assure compatibility with neighboring facilities. The following paragraphs specify where NAVFAC criteria, in lieu of local and model building codes and industry standards, is applicable to the building design and how to incorporate conformance to such criteria in the NDB IFB package in a manner not requiring reference to the applicable NAVFAC documents.

4.4.3.1 Functional Layout. The architectural programming and functional layout requirements for the building should be based on NAVFAC and customer criteria for the particular facility type. Such requirements can be easily reflected in the NDB IFB floor plans and specifications without the need to reference the NAVFAC criteria from which they were generated. This is the primary reason why schematic floor plans are included in the NDB IFB package. Including schematic floor plans in the NDB IFB package also assures customer satisfaction with the facility layout prior to award of the Design/Build contract, eliminating possible delays and increased costs which may occur if responsibility for developing the floor plans was otherwise given to a Contractor who has difficulty interpreting NAVFAC and customer criteria in trying to obtain approval of a proposed floor plan layout.

4.4.3.2 Handicapped Accessibility. For NDB projects, NAVFAC criteria should be used to determine whether a particular facility type requires accessibility by the handicapped. Where handicapped accessibility is required, the criteria is Federal Standard 795, "Uniform Federal Accessibility Standards (UFAS) (Design for Physically Handicapped Persons)". Appropriate UFAS requirements are an integral part of the NFGS system, including the NFGS-DB-XXXXX series of performance guide specifications. Accordingly, use of these guide specifications assures adherence to UFAS requirements without the need to reference the document itself. In addition, appropriate UFAS requirements should be incorporated into the NDB IFB floor plans (and site design). Thus, despite the fact that the A/E - Contractor's Design Agent may

be more familiar with the Americans with Disabilities Act (ADA) handicapped accessibility requirements, there is no need for the A/E - Contractor's Design Agent to research UFAS handicapped accessibility requirements for purposes of executing the design, unless he proposes changes to the building layout such as the location of interior partitions (see NFGS-DB-13026, "Interior Partitions Systems"). NFGS-DB-01010, "Summary of Work", specifies UFAS as the criteria for accessibility by the physically handicapped and indicates that the NDB IFB plans and specifications conform to UFAS requirements.

4.4.3.3 Fire Protection and Life Safety. For NDB buildings, the current edition of MIL-HDBK-1008, "Fire Protection for Facilities Engineering, Design, and Construction", is the criteria for fire protection and life safety. Conformance to this criteria assures that the building is designed to the same standards of fire protection and life safety as required for similar traditionally procured facilities and is therefore compatible with neighboring buildings in this regard. Adherence to NAVFAC criteria for fire protection and life safety also assures faster field inspection and occupancy acceptance since cognizant personnel (i.e., NAVFAC fire protection engineers, fire marshals and fire departments) are typically more familiar with NAVFAC criteria than with local criteria. The following paragraphs indicate how conformance to MIL-HDBK-1008 is specified in the NDB IFB package in terms easily understood and bid by the Contractor.

(NOTE: It is assumed that most NDB projects will be located on Naval installations or Navy owned property. For projects located off-base or on leased property, there may be additional Government agreements with local authorities to conform to the requirements of the applicable local building codes for fire protection and life safety. In such instances, such local requirements shall be investigated to determine the most stringent fire protection and life safety requirements applicable to the project. See paragraph 4.8 for more information.)

a) Building Classification (Use Group). The building is classified by occupancy (use group) in accordance with MIL-HDBK-1008 and translated to the equivalent use group classification of the applicable local or model building code. For the types of facilities recommended for procurement via the NDB process, the use group classifications listed in MIL-HDBK-1008 (which are based on the International Conference of Building Officials' (ICBO) Uniform Building Code (UBC)) are identical to the use group classifications listed in the model building codes. See NFGS-DB-01010, "Summary of Work", for specification of the building classification (use group). Since specific criteria for design of the building is included in the technical sections of the NDB IFB specification, specification of the use group has little impact on the Contractor's design; it is primarily specified in the event that the application of specific technical requirements of the

applicable model building code is contingent on knowing the correct use group classification.

b) Type of Construction. The NFGS-DB-XXXXX series of performance guide specifications have been prepared on the presumption that the building will be of at least noncombustible construction; it is assumed that wood construction is not desirable. The exact type of construction required should be determined by the requirements of MIL-HDBK-1008 based on the building size, occupancy and other factors, and the resultant need for hourly fire ratings for various building elements (roof, walls, interior partitions, doors, etc.) should be specified in the appropriate performance specification sections of the IFB package (Division 13). Recognizing that the "type of construction" categories, definitions and requirements of the various model building codes may differ, NFGS-DB-01010, "Summary of Work", specifies the requirement for noncombustible construction as defined by the applicable model building code but indicates that hourly fire rating requirements for various building systems and components shall be as specified in the performance specification sections of the IFB package. NFGS-DB-01010 informs the Contractor that such hourly fire rating requirements are based on Navy criteria and therefore may differ from or exceed the requirements for a specific type of construction as defined by the applicable model building code. Where hourly fire ratings are required for various building elements, the performance specification sections of the IFB package specify that construction meeting the testing and acceptance criteria of the applicable model building code for the hourly fire rating required is acceptable.

c) Fire Protection Systems. Fire protection systems (eg., sprinklers, fire alarm, etc.) shall be provided in accordance with the requirements of MIL-HDBK-1008. The appropriate basic NFGS Division 15 and Division 16 sections should be used in the NDB IFB package to specify requirements for such systems. These are the same NFGS sections which would be used for a conventional project, and, although they are identified in Appendix A as "prescriptive", they are basically written in a performance style format. Accordingly, they are easily edited and incorporated into the NDB IFB package. See paragraphs 4.5.3.1 and 4.6.2.1 for further guidance on incorporating these sections into the NDB IFB package.

d) Life Safety. NFPA 101, Code for Safety to Life from Fire in Buildings and Structures, referenced in MIL-HDBK-1008, is the criteria for life safety design. Appropriate requirements should be incorporated into the NDB IFB drawings and specifications. Thus, there is no need for the A/E - Contractor's Design Agent to research life safety requirements for purposes of executing the design, unless he proposes changes to the building layout such as the location of interior partitions (see NFGS-DB-13026, "Interior Partitions Systems").

4.4.3.4 Security. Follow the NAVFAC MIL-HDBK-1013 series and customer criteria for physical security requirements.

4.4.3.5 Aesthetics. Generally, the criteria for aesthetics is often subjective and, in some cases, can be dependent on customer preference. On the other hand, permitting the A/E - Contractor's Design Agent latitude in making aesthetic decisions can result in interesting design solutions and is more in keeping with the philosophy of Design/Build. While the NDB IFB documents contain a provision for terminating the contract in the event that the Contractor's design does not meet the Government's aesthetic requirements (see NFGS-DB-01010, "Summary of Work"), careful consideration must be given as to how restrictive the NDB IFB documents will be relative to aesthetic requirements.

a) Exterior. Where applicable, appropriate aesthetic requirements from the Base Exterior Architecture Plan (BEAP) should be considered and incorporated into the NDB IFB specifications (see NFGS-DB-13022, "Roof System" and NFGS-DB-13023, "Exterior Wall System"). As an option, building elevations may be provided as part of the NDB IFB drawings to illustrate desired aesthetic characteristics. See paragraph 4.5.3.2 for recommendations as to when the provision of building elevations in the IFB package may be appropriate and the level of detail which should be shown on such drawings.

b) Interior. Interior finish and color selections should be based on appropriate NAVFAC criteria. The NDB IFB package should contain a traditionally prepared complete interior finish and color schedule. Include edited versions of appropriate basic prescriptive NFGS sections in the NDB IFB package for interior finish selections. See paragraph 4.6.2.1 for the explanation for prescriptively specifying interior finishes and colors in the NDB IFB package. NAVFAC standard methods of design and procurement for interior furnishings (i.e., collateral equipment) should be used. Since schematic floor plans and interior finish/color selections form a part of the NDB IFB package, this procurement effort can begin when the NDB IFB package is complete.

4.4.3.6 Mechanical Design. An appropriate energy budget as well as applicable weather data for mechanical systems design should be specified in NFGS-DB-15501, "Heating, Ventilating and Air Conditioning Systems", based on NAVFAC criteria. Mechanical design for exterior fuel distribution systems (steam, oil, or gas) should be based on NAVFAC criteria.

4.5 Drawings

4.5.1 General. The NDB IFB drawings consist of complete site drawings and certain architectural drawings. Except for those items specifically

mentioned in the NFGS-DB-XXXXX series of performance guide specifications, no detailed information relative to the building's plumbing, mechanical and electrical systems need be shown on the IFB drawings.

The criteria notes of each NFGS, including the NFGS-DB-XXXXX series of performance guide specifications, specify what information needs to be shown on the NDB IFB drawings. While details regarding building components and systems need not be shown on the NDB IFB drawings, it is important to note that for bidding purposes the NDB IFB architectural drawings must locate and quantify building elements which are prescriptively specified and certain building elements which are performance specified but which are not normally shown on architectural drawings. The succeeding paragraphs give a general overview of the information which needs to be shown on the NDB IFB drawings.

4.5.2 Site Drawings. Prepare 100 percent complete civil site drawings showing all existing site conditions, site removal and demolition work and new site work. The level of detail required is the same as for traditionally procured facilities. Show all new grading, paving, storm drainage, domestic and fire water supply (including pressures and flows), sanitary sewer, landscaping, fencing and site improvements. Show the locations of borings and boring logs information. Show the finish floor elevation for the new building.

Include site plans and details as appropriate for exterior fuel distribution systems such as steam, oil or gas. Indicate the points of connection for electrical power and communications (telephone, fire alarm, etc.) systems as appropriate. Include appropriate data on electrical characteristics at the points of connection.

4.5.3 Architectural Drawings

4.5.3.1 Floor Plan(s). Prepare schematic architectural floor plans. Show overall building dimensions and centerline locations for interior partitions. Show critical interior clearance dimensions to accommodate built-in equipment or to comply with life safety requirements or handicapped accessibility requirements. Indicate required fire ratings, moisture resistance requirements, heights and sound transmission class ratings for partitions or specify such information in the IFB specification Section 13026, "Interior Partitions Systems". Indicate required fire ratings for exterior walls or specify such information in the IFB specification Section 13023, "Exterior Wall System". Show the types and approximate locations of doors and windows. Indicate the quantity and location of prescriptively specified architectural specialties, equipment and furnishings such as toilet partitions, signs, lockers, toilet and bath accessories and kitchen equipment. Show the locations for all cabinetry, carpentry and millwork items.

In addition, show the types and locations of all plumbing fixtures and appliances. Also, show the quantity and approximate locations for fire alarm system components as specified in the IFB specification Section 16401, "Interior Electrical, Lighting and Communications Systems", intrusion detection system components (if applicable) as specified in the IFB specification Section 16726, "Basic Intrusion Detection Systems (IDS)" or Section 16727, "Commercial Intrusion Detection Systems (IDS)" and intercommunication system components (if applicable) as specified in the IFB specification Section 16760, "Intercommunication System".

Show the types, quantities and locations of Government furnished equipment and appliances requiring utility connections. Indicate whether such equipment and appliances are to be Government or Contractor installed. Show requirements for special outlets or dedicated circuits as specified in the IFB specification Section 16401, "Interior Electrical, Lighting and Communications Systems".

4.5.3.2 Building Elevations. Aesthetic requirements relative to the building's exterior appearance are specified in the IFB specification Section 13022, "Roof System", and Section 13023, "Exterior Wall System". As an option, schematic building elevations may be included as part of the NDB IFB drawings. Such drawings are recommended where there is a special need to more definitively express the building's desired character, scale, arrangement and composition of materials to assure compatibility with neighboring facilities, to meet BEAP requirements or to meet special customer needs. Limit the inclusion of building elevations to those facilities requiring a specific aesthetic appearance; the A/E - Contractor's Design Agent should be given as much design freedom as possible to make aesthetic choices based on specified requirements.

When including building elevations in the NDB IFB package show finish floor elevations, ceiling heights, roof configuration and the approximate locations of all wall and roof openings, including doors, windows, louvers and chimneys. Indicate the composition, scale and generic types of wall and roofing system components. Include schematic profiles of the exterior wall to indicate special delineation or accent requirements, such as recesses, reveals, corbels, overhangs and color accents. Avoid indicating construction type and materials, unless these elements are critical to the function or appearance of the facility. When it is necessary to indicate materials, it is preferred that materials or components be described generically, using such terms as "masonry" in lieu of "brick" or "steep sloped roof" in lieu of "shingles". Limit color indications to generic terms, not the color offered for a particular manufacturer's product.

4.5.3.3 Door Schedule and Door/Frame Elevations. Criteria Note A of NFGS-DB-13025, "Doors and Windows", specifies the information to be shown on the

NDB IFB door schedule drawing. Basically, this drawing is similar to a door schedule prepared for a Traditional project, except that door thicknesses, door and frame materials and door frame detail callouts are not included since this information is contingent on the A/E - Contractor's Design Agent's proposed design. Accordingly, the NDB IFB door schedule should include "blank" columns where the A/E - Contractor's Design Agent can fill in information relative to door thicknesses, door and frame materials and door frame detail callouts for his proposed design. Show schematic door and frame elevations along with the NDB IFB door schedule.

4.5.3.4 Window Schedule and Window Elevations. For projects involving varying sizes or types of windows, it may be necessary to include a window schedule and schematic window elevations as part of the NDB IFB drawings. Criteria Note A of NFGS-DB-13025, "Doors and Windows", specifies the information to be shown on the NDB IFB window schedule drawing. Basically, this drawing is similar to a window schedule prepared for a Traditional project, except that head, jamb, sill and mullion detail callouts are not included since this information is contingent on the A/E - Contractor's Design Agent's proposed design. Accordingly, the NDB IFB window schedule should include "blank" columns where the A/E - Contractor's Design Agent can fill in information relative to window head, jamb, sill and mullion detail callouts for his proposed design. Show schematic window elevations along with the NDB IFB window schedule.

4.5.3.5 Finish and Color Schedule. Prepare to 100 percent completion in the same fashion as for a traditionally procured project. Include material(s) and colors for cabinetry, carpentry and millwork items.

4.5.3.6 Cabinetry, Carpentry and Millwork Plans and Elevations. Plans and elevations illustrating the number, types, locations, sizes, dimensions, mounting heights, functional and operational features, configurations and arrangements of cabinetry, carpentry and millwork items should be attached as sketches to the end of IFB specification Section 13027, "Cabinetry, Carpentry and Millwork". As an option, for projects involving extensive or varying types of cabinetry, carpentry and millwork items, such plans and elevations may be shown on the NDB IFB drawings.

4.6 Specifications. The specifications form the heart of an NDB IFB package. Unlike other Design/Build procurement strategies where the technical quality of Contractor proposed designs comprises a factor for award of the contract, the NDB process involves no technical evaluation of contractor proposals prior to contract award; the basis for contract award is strictly the lowest responsive bid from a responsible bidder. Accordingly, the specifications must accurately and explicitly define project requirements to meet customer needs and facilitate bidding, yet, at the same time, they must be prepared in a fashion which affords the potential advantages typically

associated with Design/Build procurements, i.e., savings of time and cost. To meet this objective, the specifications for an NDB IFB procurement are prepared and arranged in a similar manner as for a Traditional procurement, i.e., in Construction Specifications Institute (CSI) three-part format, but, they are comprised of a mixture of edited versions of basic NFGS sections typically used for Traditional procurements and edited versions of NFGS sections which have been specially prepared for use on NDB procurements (NFGS-DB-XXXXX guide specifications). The types of specification sections used can be categorized as follows:

- a) Division 1 - General Requirements Sections (with CSI Masterformat designations)
- b) Technical Prescriptive Sections (with CSI Masterformat designations)
- c) Technical Performance Sections (with CSI Unifomat designations).

Appendix A lists and distinguishes those sections which are basic NFGS sections used for both Traditional procurements as well as NDB procurements and those sections which comprise the NFGS-DB-XXXXX series of guide specifications used only for NDB procurements. Like the basic NFGS sections, the NFGS-DB-XXXXX series of guide specifications are edited for use on specific projects by following the directions given in the criteria notes contained within each section. The paragraphs below provide further guidance on editing NFGS sections for use on NDB projects as well as additional background information relative to each of the categories of specification sections.

4.6.1 Division 1 - General Requirements Sections. The Division 1 sections consist of a mixture of basic NFGS sections and NFGS-DB-XXXXX sections edited to suit project requirements. Section 01090, "References", Section 01100, "Special Project Procedures" (if applicable), Section 01500, "Construction Facilities" and Section 01560, "Temporary Controls", are basic NFGS sections. The remaining Division 1 sections consist of NFGS-DB-XXXXX sections. These NFGS-DB-XXXXX guide specifications are essentially basic NFGS sections which have been modified to specifically include those provisions which are essential and unique to the NDB process. In addition, NFGS-DB-01301, "Submittals at Design Completion (Phase A)" is a Division 1 section specifically developed for use on NDB procurements. Reading the text and accompanying criteria notes in each of these NFGS-DB-XXXXX sections will provide insight into those features which distinguish the NDB process from conventional construction procurements. For readers who are familiar with the typical content of basic NFGS Division 1 sections, a brief synopsis and background on the special NDB provisions included in the Division 1 sections is as follows:

a) Section 01010, "Summary of Work". Special NDB provisions include:

1) A minimum square footage for the building is to be provided in the paragraph for the project description. The purpose is to permit the Contractor some latitude in using pre-engineered, panelized or modular construction where components may be available in standard sizes which slightly exceed the dimensions given for the building on the IFB drawings.

2) Criteria relative to the building classification (use group), type of construction, and handicapped accessibility requirements is provided (see paragraphs 4.4.3.2, 4.4.3.3 a and 4.4.3.3 b).

3) The paragraph on project schedule, phasing and time constraints has been modified to reflect the three phases of an NDB contract, i.e., Phase A, "Design Documents", Phase B, "Government Conformance Review", and Phase C, "Construction". Phase C, "Construction", cannot commence until the Contractor's design submitted under Phase A, "Design Documents", has been reviewed and approved and written authorization to commence construction is received by the Contractor. The criteria note associated with this paragraph explains the reasoning behind requiring a single, complete design submission from the Contractor and for not requiring interim design submissions or permitting "fast-tracking" of the construction. In the event that the Contractor submits his design prior to the time allotted for Phase A in the contract and the design is approved by the Government within its allotted time for Phase B or in less time, all remaining Phase A and Phase B contract time will be credited to Phase C, "Construction", contract time. Conversely, liquidated damages for failure to complete the work within the contractually allotted time are assessed only on Phase C.

4) A paragraph relative to administrative requirements for execution of the Contractor's design (Phase A of the contract) has been added. This paragraph enumerates conferences, meetings and discussions required prior to the Contractor's single submission of his complete design and the purposes for such meetings and discussions. The paragraph also discusses the purposes of the Government's conformance review of the Contractor's proposed design and the contractual consequences in the event that the Contractor's design cannot be approved for construction. Of special note is the Government's option to terminate the contract for 2.5% of the contract price in the event that the Contractor's design does not satisfy the Government's functional and aesthetic requirements and the parties are unable to mutually agree on functional and aesthetic modifications at no change in contract price and schedule. The intent of this provision is to recognize that the determination of compliance to functional and aesthetic requirements in the IFB may be subjective.

Therefore, the provision protects both contract parties. On the one hand, it allows for termination of the contract without default while providing a reasonable compensation to the Contractor for his design services. On the other hand, it prevents construction of a facility not suiting the functional or aesthetic requirements of the Government at a minimal cost. It is recognized that the 2.5% amount may not, in reality, fully compensate the Contractor for his actual design expenses; therefore, the provision does not entice an attempt by the Contractor to terminate the contract for convenience in cases where conflicts in opinion over functional and aesthetic matters could otherwise be easily resolved.

5) The paragraph on Pre-Construction Conference has been modified to call for two such conferences. One conference is to be held in conjunction with the Pre-Design Conference during Phase A of the contract to discuss primarily administrative matters. The second conference is to take place at the site after the Contractor's design has been approved to initiate the field work.

6) A paragraph has been added to make the Contractor responsible for obtaining operating permits for the proposed facility in cases where the issuance of required permits is subject to the submittal of final design documentation to the issuing authority. In most cases, because the IFB package contains a 100 percent complete site design, the EFD/EFA can apply for and obtain these permits prior to the Contractor completing the final design for the facility.

b) Section 01025, "Measurement and Payment". This section is the same as the basic NFGS section used on Traditional projects except that the paragraph on schedule of prices has been modified to include a requirement that the Contractor provide a line item for the cost of his design effort. This information is requested so that approval and release of a reasonable and timely payment for design services can be made once the Contractor's design has been approved by the Government and construction is about to commence.

c) Section 01301, "Submittals at Design Completion (Phase A)". This section has been specifically developed for use on NDB contracts. It essentially describes the Contractor's scope of work for execution of the design documents (Phase A of the contract). Topics covered include Contractor and designer qualifications and experience requirements, instructions for formatting of design drawings, specifications and design analyses (basis of design and calculations), and submission and distribution requirements for the design documents. The technical performance specification sections of the IFB enumerate the specific types and content of Contractor prepared design drawings, specifications and design analyses. In keeping with the Design/Build philosophy of referencing industry standards with which the A/E - Contractor's Design Agent would be most familiar, this section permits the

Contractor to use any commercially available guide specifications, including NAVFAC guide specifications, when preparing his specifications for the project.

d) Section 01302, "Submittals During Construction (Phase C)".

This section is the same as the basic NFGS section used on Traditional projects except that since completion of a submittals register is contingent on having a complete design (i.e., the specific project specification sections which are to be developed by the Contractor's design agent), the Contractor, in lieu of the IFB preparer, is tasked with preparation of the submittals register.

e) Section 01400, "Quality Control". This section is the same as the basic NFGS section used on Traditional projects except that the Quality Control manager and submittal reviewers are required to be members of the Contractor's design team (A/E - Contractor's Design Agent). Except for construction submittals reserved for Government review and approval (see NFGS-DB-01301, "Submittals at Design Completion (Phase A)"), this requirement puts responsibility for review and approval of submittals with the appropriate designer of record yet keeps the submittal review and approval process a responsibility of the Contractor's organization.

f) Section 01700, "Project Closeout". This section is the same as the basic NFGS section used on Traditional projects except that the paragraph on project record documents has been modified to include the requirement that the Contractor's design team prepare record drawings from the set of as-built prints maintained at the job site. Instructions for drafting procedures for record drawings are included.

g) Section 01730, "Operation and Maintenance Data". This section is the same as the basic NFGS section used on Traditional projects except that in addition to submitting and approving operation and maintenance data packages, the Contractor, via his design agent, is tasked with also preparing an Operation and Maintenance Support Information (OMSI) Manual. Because the facility types recommended for procurement via the NDB process are typically routine, general purpose type buildings, this guide specification has been tailored to call for the equivalent of a Type C User Manual as defined by the NAVFAC OMSI program.

4.6.2 Technical Sections. As is true in all forms of Design/Build contracts, careful consideration must be given to as to how restrictive the project specifications will be when describing the technical design and construction requirements for the project. The technical sections of the specification must be explicit enough to define customer requirements yet open enough to permit the design freedom necessary to achieve the cost and time savings advantages associated with Design/Build procurements. In addition, as is true with conventional IFB procurements, the technical sections must be

prepared in a practical fashion facilitating Contractor bidding. For these reasons, the technical sections of the NDB IFB specification consist of a mixture of "prescriptive" and "performance" specification sections.

4.6.2.1 Technical Prescriptive Sections

a) Definition. Prescriptive specification sections contain specific requirements which describe materials, products, systems, sizes, ratios, fabrication, quality of workmanship, method of installation, etc. Options are frequently permitted but are limited to those included in the specifications.

b) Application. In an NDB contract, the use of prescriptive specification sections is appropriate for:

1) Items which can be readily described and quantified in the specification sections without the need for detailed drawings. Examples include such items as sealants, glazing, equipment and venetian blinds.

2) Items which are impractical or difficult to specify in a performance fashion (due to a lack of uniform test methods) without describing the exact material requirements or items where the exact desired material is known. Examples include landscaping and interior finishes.

3) Items for which there would be no potential for significant cost savings by performance specifying or items which are traditionally specified in a fashion which permit Contractor options for various materials. Examples include sitework elements (bituminous parking, storm, sanitary and water piping, fencing, etc.) and architectural specialties.

4) Items which are considered accepted construction. Examples include finish hardware and glazing.

Appendix A lists those technical sections of an NDB IFB specification which are typically prepared in a prescriptive fashion.

c) Format. Edited versions of basic NFGS sections comprise the technical prescriptive sections of the NDB IFB specification. It is worth noting that although Appendix A lists the fire extinguishing sprinkler and interior fire alarm system specification sections as basic prescriptive NFGS sections, the basic NFGS sections for these systems are written in a performance fashion. They are listed in Appendix A as prescriptive to distinguish them from the NFGS-DB-XXXXXX technical performance sections which have been specifically developed for use on NDB contracts and which require

Contractor preparation of detailed designs during Phase A of the contract.

d) Preparation. Edit the basic NFGS sections for use as technical prescriptive sections for specific NDB projects by following the directions given in the criteria notes contained within each section. In addition, the following changes must be made to each of these sections:

1) Retitle the "Submittals" paragraph to "Submittals During Construction (Phase C)" and change the text of the "Submittals" paragraphs to read: "Submit the following in accordance with Section \=01302=\, "Submittals During Construction (Phase C)".". Confirm that Government approval of construction submittals is indicated by a "G" next to the submittal item ONLY for fire protection submittals, color selections, sample panels, sample installations and administrative submittals (except Operation and Maintenance Data Packages). The majority of construction submittals will be approved by the Contractor's Quality Control (QC) organization via the A/E - Contractor's Design Agent. For more information see NFGS-DB-01301, "Submittals At Design Completion (Phase A)", NFGS-DB-01302, "Submittals During Construction (Phase C)" and NFGS-DB-01400, "Quality Control".

2) Change cross references to technical prescriptive sections NOT forming a part of the NDB IFB specification to the appropriate technical performance specification.

3) Confirm that all items specified to be "as indicated" on the drawings are, in fact, shown on the drawings. When it is impractical to show such items on the NDB IFB drawings or there is no appropriate place on the NDB IFB drawings on which to show such items, locate and quantify such items directly in the specification section and delete the phrase "as indicated".

4.6.2.2 Technical Performance Sections

a) Definition. Performance specification sections contain requirements for materials, products and systems which must be met and criteria for verifying compliance, but do not contain unnecessary limitations for selecting materials, products, or systems which will meet the specified requirements.

b) Background. The origins, concept, use, format and other pertinent information relative to performance specifying is provided in the CSI Manual of Practice, Section IV - "Special Applications", Chapter 4, "Performance Specifying". The information, guidance and direction provided in this publication was the basis for the preparation of the NFGS-DB-XXXXX series of performance guide specifications. Of special note is the levels of

performance specifying defined by this CSI chapter. These levels range from Level A (totally prescriptive, non-performance) to Level J (broad performance through statements of function in user-oriented, nontechnical requirements). For purposes of NDB, the NFGS-DB-XXXXX series of performance guide specifications were generally prepared on a Level D, E or F degree of performance specifying. This level of performance specifying identifies functional entities of the building as subsystems or assemblies with attributes conforming to various technical performance requirements; it requires that the Contractor possess only fundamental design and construction capability. This was felt to be the broadest practical level of performance specifying which could be utilized for an IFB procurement; it affords a reasonable amount of freedom in designing and selecting systems, products and components which meet the specified performance requirements yet it provides a sufficient basis to allow Contractors to prepare bids which conform to the quality levels required for the facility with a minimum of risk. It does not require that the Contractor advance the state of the art in design or construction; the specified performance requirements can be met through the use of "off-the-shelf" and readily available construction systems and products.

c) Application. In an NDB contract, the use of performance specification sections is appropriate for:

1) Building subsystems or assemblies where a wide range of available options offers the potential for cost savings through increased competition.

2) Building subsystems or assemblies for which no single distinct solution is recognized as an exclusive choice in terms of material, configuration or technique.

3) Building subsystems or assemblies where the costs of options are reasonably competitive and system manufacturers can easily respond to the performance specification.

4) Building subsystems which comprise a substantial portion of the project and whose requirements are easily performance specified (i.e., common test methods exist as a basis for comparison of various subsystems and products).

5) Building subsystems or assemblies which would otherwise require the preparation of extensive, detailed design drawings in order to convey necessary requirements.

Appendix A indicates those technical sections of an NDB IFB specification which are performance specifications. So that the Contractor

is clear on the distinction between the performance and prescriptive specification sections within a particular project, NFGS-DB-01301, "Submittals at Design Completion (Phase A)", identifies and lists these same sections as performance specification sections.

d) Format. Edited versions of NFGS-DB-XXXXX performance guide specification sections comprise the technical performance sections of the NDB IFB specification. In keeping with the CSI format for performance specifying, these sections specify performance attributes for the various building subsystems. For each attribute, the desired performance is defined through:

1) A requirement stating the desired end result (usually in qualitative terms),

2) A criterion statement which is a definitive statement of a performance level for a particular requirement, stated in either quantitative or qualitative terms, and which is either measurable or observable, and

3) A test or evaluation statement which indicates the method by which compliance with the required performance will be checked or verified (eg., through the submission of design drawings, specifications or design analyses during Phase A, Design Documents, of the contract or the submission of test reports during Phase C, Construction, of the project).

e) Preparation. Edit the NFGS-DB-XXXXX performance specification sections for use as technical performance sections for specific NDB projects by following the directions given in the criteria notes contained within each section.

4.7 Government Estimate for Construction.

4.7.1 Format. Base the Government estimate for construction on the NDB IFB drawings and specifications. Follow the Tri-Services Automated Cost Engineering System (TRACES) Work Breakdown Structure (WBS) format, the standard adopted by NAVFAC, for categorization of costs.

4.7.2 Preparation. Prepare the Government estimate for construction of an NDB project using standard NAVFAC tools and techniques, including parametric estimating and computerized estimating programs. The level of effort required to prepare the Government estimate for construction of an NDB project is similar to that required to prepare a schematic or design development level estimate for a conventional project. The estimate shall include all anticipated costs to construct the project as well as an estimate of the Contractor's cost to execute the design.

4.7.2.1 Estimating Construction Costs. For items prescriptively specified or fully detailed on the IFB drawings, provide individual line item unit price estimates for labor, material and equipment based on a detailed quantity takeoff of the IFB drawings. For items which are performance specified in the IFB, estimate construction costs on a systems or assemblies level wherever practical (eg., roofing, exterior walls, etc.). It may be necessary to estimate several systems or assemblies which satisfy the performance requirements in order to establish a reasonable "range" of possible costs for such systems. Express these costs as a cost per unit of measure for the system (eg., dollars per square foot). It is a good idea to use the average unit costs for such systems, not just the lowest cost. The total facility is comprised of many interdependent systems which, when considered individually, may not always represent the least expensive solution to one particular building system. Therefore, the total building cost may not necessarily be the sum of the lowest cost individual systems. Estimate and indicate appropriate markups for insurance, taxes, overhead, profit, bond, etc. Include an estimate of the Contractor's costs for construction Quality Control.

4.7.2.2 Estimating the Contractor's Cost to Design. Prepare a detailed breakdown estimate of the Contractor's cost to design. This estimate can be prepared much the same way that a Government estimate for an A/E fee may be prepared. When figuring this cost it must be kept in mind that a significant portion of the design effort is completed when the NDB IFB package is prepared (i.e., site investigation, site design, programming and layout, architectural features, interior design, etc.). In fact, preparation of the NDB IFB package can represent approximately 50 percent of the total design effort (in terms of fee) for the project, depending on building complexity, the extent of site investigation and site design necessary, etc. Therefore, the Government estimate for the Contractor's design effort need only account for a portion of the total design costs for the project. The Contractor's primary design functions include design development and engineering (finalization of design drawings, specifications and design analyses), preparation of an OMSI manual, preparation of record drawings, and travel, subsistence, printing, reproduction and mailing associated with completing the design documents. (Note: The Contractor's cost to have his design agent approve construction submittals is considered part of the cost for construction Quality Control. Therefore, the cost for the Contractor's design agent to approve construction submittals should not be included in the estimate of the Contractor's cost to design but should be included as part of the estimated costs for construction.) The project's edited version of NFGS-DB-01301, "Submittals at Design Completion (Phase A)", in conjunction with the technical performance specification sections, detail the A/E - Contractor's Design Agent's scope of work relative to the production of drawings, specifications and design analyses, including requirements for printing, reproduction and mailing of his prepared design documents. The project's edited versions of NFGS-DB-01010,

"Summary of Work," NFGS-DB-01700, "Project Closeout" and NFGS-DB-01730, "Operation and Maintenance Data", detail the A/E - Contractor's Design Agent's tasks relative to attendance at pre-design conference and design progress meetings, preparation of record drawings and preparation of an OMSI manual.

4.8 Design Analyses

4.8.1 Civil. Prepare a complete design analyses (bases of design and calculations) for the civil engineering site design in a Traditional fashion. Include a general description of surface and subsurface conditions at the site, adequacy of existing utilities and proposed utilities (flows, pressures, elevations, pipe sizes, etc.), proposed methods for environmental pollution control and storm water management, logic behind building placement and orientation, the type and volume of vehicular and pedestrian traffic expected and how the design responds to same, landscaping and site improvements relative to BEAP requirements, security requirements (fencing), calculations for storm drainage and utility piping and equipment, paving calculations, etc.

4.8.2 Architectural. Prepare a design analysis which discusses and explains the reasoning behind those aspects of the architectural design which are reflected in the NDB IFB drawings and specifications. Discuss and explain user and program requirements, the advantages and suitability of the proposed design including the logic behind the building configuration, number of stories, height, and floor plan layout (circulation and adjacencies), alternate designs considered, compatibility requirements with appropriate nearby facilities (design elements, details, materials, colors, circulation, signage, site elements to coordinate with existing facilities and BEAP requirements), interior finishes, etc.

4.8.3 Fire Protection. Prepare a complete design analyses (bases of design and calculations) in a Traditional fashion in accordance with the requirements of MIL-HDBK-1008. For projects located off-base or on leased property where a previous agreement with local authorities stipulates that proposed Navy construction shall conform to the requirements of the local building code, prepare a second fire protection design analyses based on the requirements of the local applicable code for comparison purposes. In such cases, it may be necessary to specify the more stringent fire protection requirements in the IFB technical documents.

4.8.4 Mechanical. Prepare a design analyses (basis of design and calculations) for the exterior fuel distribution system. Include discussions on the basis for the selection of the type of fuel and a basic description of the fuel storage and conveying system to be used. State type, location of take-off from supply, available pressure, power supply and requirements and

the type and materials for piping, valves and storage facilities. Prepare calculations for system sizing, including storage capacity, pipe and valve sizes, pumps, heat loss for underground heat distribution systems, etc.

Section 5: ADMINISTRATION OF NDB PROJECTS

5.1 General. Proper Government administration of an NDB procurement is critical to the ultimate success of the project. Although a well prepared NDB IFB package may result in exceptional design and construction effort by the Contractor, it cannot compensate for poor contract administration by the Government. It is critical that all Government personnel involved in an NDB project (i.e., EFD/EFA personnel, ROICC, PWO, Major Claimant, Tenant/User, etc.) understand their roles and properly execute their responsibilities relative to administration of an NDB contract. Some of these roles and responsibilities differ from those encountered in Traditional procurements. However, like Traditional procurements, the success of an NDB contract is contingent on good communication and teamwork. The following paragraphs provide instructions and guidance relative to the unique requirements for administration of an NDB project. The paragraphs are arranged in the sequence in which events occur during the life of the project.

5.2 Pre-Design Activities

5.2.1 Programming and Planning. Typically, the EFD/EFA and customer are not in a position to make the decision to use NDB as the project's procurement strategy until the project is Certified Ready For Design (CRFD). It is not until the CRFD stage that several factors weighing into this decision, such as EFD/EFA workload, capabilities and experience as well as construction market conditions and the project's schedule, are better known. Fortunately, normal programming and planning activities prior to the CRFD stage are applicable regardless of whether the ultimate method of construction procurement is NDB or Traditional. Accordingly, for projects funded through the Navy's Military Construction (MCON) program, documentation such as the DD1391, FY Military Construction Project Data, Facility Study, site approvals, CRFD packages, etc. can be prepared in the usual manner.

5.2.2 Funding

5.2.2.1 Funding Construction Costs. The methodology used for developing budget estimates (i.e., funding requests or programmed amounts) for construction of conventionally procured projects will be equally applicable for projects ultimately procured using the NDB approach. Budget estimating techniques for establishing site development costs for Traditional projects can be used. Likewise, estimate building costs parametrically using standard NAVFAC unit cost guidance for the Category Code of the particular facility involved, with appropriate adjustments for location, size, escalation and special building features (i.e., special foundation requirements, built-in equipment, OMSI, etc.). The cost for construction Quality Control and

Post Construction Contract Award Services is included in these standard NAVFAC unit cost guidance figures and should likewise be included in the budget estimate for construction. Include standard cost markups for Supervision, Inspection and Overhead (SIOH) and contingency for field change orders and an estimate of costs for collateral equipment.

Although the Contractor incurs costs for design of the building in an NDB construction contract, the cost for the Contractor's design services must be supported by the funding programmed for the building construction alone. Do not include an estimated amount for Contractor design services when preparing the construction budget estimate for the following reasons:

a) Including a line item for the cost of design in the programmed budget estimate for construction would, in effect, mean that the decision to use NDB as the procurement method for the facility would have to be made at the early planning stages of the project. As mentioned previously, the EFD/EFA and customer may not be in a position to make this decision relative to the project at this time. Furthermore, committing a portion of the normal amount of design funding for the project to support the Contractor's effort to complete the design may prohibit future consideration of procuring the project via a conventional procurement approach since the design funds available may not be adequate to support a complete Traditional design effort without reprogramming.

b) Planners, budgeters and programmers would have to deal with the logistics of funding appropriate amounts for a "split" appropriation of design funds, i.e., design funds necessary to produce the IFB package and design funds in support of the Contractor's design effort.

c) The construction budget estimate would be subject to scrutiny and interpretation regarding possible violation of the Brooks Act, i.e., "low bidding" design services. Also, consideration would have to be given to the total amount of fee paid for design services relative to the six percent fee limitation when considering fees for both the preparation of the IFB package and the cost of the Contractor's design effort.

Despite the fact that the Contractor's expenses for design services are not programmed as part of the budgeted construction costs, past experience has shown that awards of NDB construction projects have been made within the funds available and often below the Government estimate for construction. This would seem to be at least partly attributable to the fact that the building budgets for these projects were based on NAVFAC unit cost guidance for similar facilities procured in a Traditional fashion which have, in all likelihood, been designed in excess of the minimum requirements typically stipulated in the NDB IFB performance specifications. This would appear to

suggest that the construction cost savings inherent to the Design/Build process are more than adequate to account for the Contractor's expenses to design for the scale and type of facilities usually procured via NDB.

5.2.2.2 Funding Design Costs. The budget for design costs must cover anticipated expenses for preparation of the NDB IFB package as outlined in Appendix A. When NDB IFB packages are prepared by A/E contract, such a budget must also consider costs for Government (in-house) support of this effort. The completed NDB IFB package often approximates a 35 percent design completion submission. Thus, as mentioned previously, preparation of the NDB IFB package can represent approximately 50 percent of the total required design effort (in terms of fee) for the project, depending on building complexity, the extent of site investigation and site design necessary, etc.

5.2.2.3 Establishing the Government's Estimated Cost of Construction (ECC). Like traditional procurements, the ECC for an NDB project represents the Government's estimate of the approximate bid price for the work. To arrive at an ECC for an NDB project, make the following adjustments to the programmed amount for construction:

- 1) Like Traditional projects, deduct the standard markup rates used for SIOH and contingency for field change orders from the programmed amount for construction. On projects with minimal or simple site development, consideration could be given to reducing the standard five percent contingency for field change orders to permit more flexibility in the ECC.

- 2) Like Traditional projects, deduct the standard budgeted amount (usually 1 to 1-1/2 percent) for Post Construction Contract Award Services from the programmed amount for construction. One might expect the budget requirement for these services to be less on an NDB project than on a traditionally procured project since the A/E - Contractor's Design Agent is responsible for review and approval of the vast majority of construction submittals through the contractor's quality control program and only a limited number of construction submittals (see NFGS-DB-01301, "Submittals at Design Completion (Phase A)") require Government review and approval. However, unlike Traditional procurements, the Government (either through in-house effort or via the A/E - IFB Preparer) incurs costs associated with the review and approval of the Contractor's design for an NDB project which must be paid for with Post Construction Contract Award Services funds. Thus, the budgeted amount for Post Construction Contract Award Services for an NDB project should be approximately the same as that of a conventional project.

- 3) Unlike Traditional procurements, the budgeted amount for

OMSI should remain as part of the ECC. In an NDB procurement, the A/E - Contractor's Design Agent is responsible for preparation of an OMSI manual.

5.2.3 Scheduling. Typical time frames scheduled for completion of all predesign activities for a Traditional project will be equally applicable to an NDB project. In cases where the NDB IFB technical documents will be prepared via A/E contract, allow appropriate and conventional time for the A/E selection, negotiation and contract award process. The following represents average recommended time frames necessary to execute an NDB project from the start of preparation of the IFB package to the completion of construction (occupancy of the facility):

<u>Milestone Event</u>	<u>Time Required</u>
Prepare and submit 100 percent complete IFB technical documents for Government review	3 to 4 months
Government review of IFB technical documents (At this time, prepare pre-solicitation notice and issue CBD announcement for NDB contract)	1 month
Revise IFB technical documents to incorporate Government review comments/forward documents for Government approval/advertisement	1 month
Government approval of IFB technical documents and forward for reproduction for advertisement	2 weeks
Assemble/prepare bidding requirements, contract forms and conditions of the contract/reproduce IFB package for advertisement	2 weeks
Advertise IFB package/Bidding period (Conduct pre-bid conference 3 weeks after advertisement)	6 weeks
Bid opening/Conduct Pre-Award Survey/Contract Award	1 month
Commencement of Phase A, Design, of Contract	15 days
Completion of Phase A, Design	3 to 4 months
Completion of Phase B, Government Conformance Review	1 month

Completion of Phase C, Construction/Building Occupancy	8 to 12 months
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Time frames for completion of the IFB technical documents and completion of Phases A and C of the NDB contract will obviously vary depending upon the scope, scale and complexity of the project, i.e., building size, type, site constraints/difficulties, etc. In addition, consider adjustments to the schedule as necessary for unique projects where the Contractor is tasked with securing operating permits for the building from local authorities where the issuance of such permits is contingent upon the review and approval of final design documentation by such local authorities. Such factors may warrant a longer period of time for construction, for completion of the IFB technical documents, and/or the need for interim (partially complete) submissions for review and approval rather than a single submission of 100 percent complete IFB technical documents. On the other hand, while such factors may also warrant a longer period of time for completion of Phase A, Design, of the NDB contract, all NDB contracts involve only a single submission of 100 percent complete design documents from the Contractor during this Phase. The reasons for this are given in NFGS-DB-01010, "Summary of Work". Although past experience has shown that additional time for resubmissions of the A/E - Contractor's Design Agent's proposed design under Phase A of the NDB contract are often necessary to meet the technical requirements of the IFB package and thus secure Government approval to start construction (Phase C), it must be remembered that such additional time is at the Contractor's expense relative to the time allotted for completion of Phase C, Construction; in such cases, the total time allotted for completion of the contract remains the same. Conversely, past experience with NDB contracts has shown that once the Contractor's design has been approved, construction can take less time than that contractually allotted due to the efficiencies inherent with having one organization responsible for both design and construction.

5.3 Preparation of the IFB Package

5.3.1 General. In general, administration of the preparation of the NDB IFB package is similar to the administration of the preparation of bidding documents for a conventional project. This holds true whether the MOA is in-house or via A/E - IFB Preparer services. Of key administrative importance in the preparation of NDB IFB documents is making everyone aware of the unique nature of an NDB contract; Government participants must be apprised of what to expect relative to the format and content of the NDB IFB technical documents and the input required from them during preparation and review of the IFB package. The paragraphs below highlight some key aspects of administration which differentiate the preparation of NDB IFB documents from the preparation of Traditional bidding documents.

5.3.2 Preproposal Meeting. Like many Traditional projects, a Preproposal Meeting should be convened for NDB projects when the IFB technical documents will be prepared by A/E contract. The meeting should be held at the project site and include all interested Government parties (i.e., EFD/EFA personnel, ROICC, PWO, Major Claimant, Tenant/User, etc.). Like a Preproposal Meeting for a conventional project, discussions should focus on ensuring that all required tasks and activities are identified and assigned in the A/E - IFB Preparer's scope of work and on providing information needed by the A/E to prepare a fee proposal. Discuss project technical requirements as well as the scope of design services to be provided. In addition, provide the A/E a copy of this Military Handbook as well as a hard copy of the NFGS-DB-XXXXX series of performance guide specifications along with other data or technical criteria which may help the A/E better understand the extent of design services required. Relative to the NDB process:

a) Discuss overall Design/Build procedures and the responsibilities of each principal participant. Discuss the relationship between the A/E - IFB Preparer and the Government as well as the roles and responsibilities of Government personnel throughout the various stages of the project as detailed in this Military Handbook. In addition, highlight that the A/E - IFB Preparer's contact with the Contractor and the A/E - Contractor's Design Agent will only be through appropriate Government personnel.

b) Address the performance orientation of the design and the technical material to be contained in the IFB package, highlighting its differences in comparison to a conventional contract. Emphasize that the NDB IFB technical documents must be carefully prepared to accurately specify project and customer requirements while maintaining a careful balance between restrictions for construction quality assurance and design freedom for the Contractor. Address the importance of accurate and expeditious customer input to the preparation of the IFB technical documents; design changes after award of the NDB contract are construction "change orders" and can be costly. Brief the customer on what to expect from the Contractor in the way of design documentation for the project after award of the NDB contract.

5.3.3 Pre-Design/Orientation Meeting. A Pre-Design meeting should be held at the start of the NDB IFB preparation effort. For NDB IFB packages prepared through A/E services the meeting should usually be held at the EFD/EFA with appropriate EFD/EFA and A/E personnel attending. When the NDB IFB package will be prepared by in-house personnel at the EFD/EFA it may be of benefit to hold the pre-design meeting at the project site with attendees including those typical for a Preproposal Meeting. In such a case, discussions should include the same topics described in the paragraph

5.3.2 as well as those topics included in this paragraph. Like Traditional procurements, the purpose of the Pre-Design meeting is to initiate and coordinate the design effort. In addition to the usual discussions relative to project specific design issues, unique, unusual or special project design requirements, document format and administrative requirements, the Pre-Design meeting for an NDB project should also address the following:

a) Discuss in detail the requirements for preparation of the NDB IFB technical documents as outlined in Section 4 of this handbook. In particular, explain the application of both Navy specific and local and model building code and industry standard criteria in preparation of the IFB technical documents.

b) Emphasize the need for the NDB IFB documents to be complete in their description of facility design requirements and user expectations. It is important that the IFB package convey the intent and objectives of the facility's design especially for its qualitative, less tangible aspects, such as aesthetics.

c) Review the format and preparation of the IFB project specification with emphasis on the distinction between performance and prescriptive specifications. Reemphasize that the performance specifications must be responsive to needs of the using agency while affording an appropriate degree of design latitude to the Contractor.

d) Discuss design and construction alternatives likely for the project and the potential response from the local construction community. Discuss the design and construction schedule and its impact, if any, on preparation of the NDB IFB documents.

5.3.4 Submission(s) and Review(s) of NDB IFB Technical Documents. The submission and review of the NDB IFB technical documents should be handled in a manner similar to the submission and review of design documents for a conventional project. The number of interim submissions and reviews required is obviously contingent on the scope and complexity of the project and the type and extent of design services required, however, in many cases, only one complete submission and review of the NDB IFB technical documents will be required. Reviewing personnel and agencies involved should be the same as would be involved for a conventionally designed project. However, because all reviewing personnel may not have attended previous project meetings (eg., Preproposal or Pre-Design meetings), it is critical that such personnel be apprised of the differences in format and content between NDB IFB technical documents and those typically encountered in conventional work. Appendix B contains an example of a standard transmittal letter for use in distributing NDB IFB design documents to reviewing personnel which highlights the

Design/Build nature of the contract as well as providing general guidance and direction on aspects requiring attention during the review process. The ultimate review and approval process for the NDB IFB technical documents is the same as that employed for conventional projects. To assure that all review comments have been properly addressed and that the final NDB IFB technical documents satisfy customer needs and reflect all necessary project requirements, a design review meeting should be held at the project site. Participants should include the EFD/EFA Design Manager/Architect in Charge/Engineer in Charge (DM/AIC/EIC), the Major Claimant, Tenant/User, PWO, ROICC and IFB preparing personnel (A/E or in-house). The meeting should resolve that the NDB IFB technical documents require no further revision and are ready for advertisement.

5.3.4.1 Value Engineering Team Study (VETS). For projects so warranting, perform a Value Engineering Team Study (VETS) on the completed NDB IFB technical documents. Like Traditional projects, the VETS may be conducted by either EFD/EFA (in-house) personnel or through contracted services with qualified firms providing Value Engineering services. Unlike Traditional projects, however, the VETS should concentrate on value engineering the criteria contained within the performance specifications as well as the more conventionally prepared schematic architectural design and complete site design. Emphasis should be placed on assuring that the specified performance and prescriptive requirements do not unnecessarily restrict the Contractor's design options. The study should be scheduled in conjunction with the review of the final submission of the NDB IFB technical documents, and VETS proposals should be discussed and resolved at the design review meeting.

5.3.5 Pre-Solicitation Notice and CBD Announcement. When the NDB IFB technical documents are 100 percent complete and submitted/distributed for Government review and approval, appropriate EFD/EFA personnel should prepare a pre-solicitation notice and issue a CBD announcement advertising the NDB contract. The pre-solicitation notice should include a brief description of the project and NDB procedures, highlighting the need for both design and construction services. The notice should also include a projected timetable for advertisement, the award basis and EFD/EFA points of contact for further information. The pre-solicitation notice may be published in construction trade journals and mailed directly to potential bidders. Include bidders on standard bidders lists, as well as firms not typically involved with NAVFAC work, such as Design/Build firms, turnkey contractors, construction management firms, building system franchise contractors, and A/E/Contractor joint ventures active in Design/Build contracts. In addition, consult with the A/E - IFB Preparer (if applicable) for names of other potential bidders.

5.3.6 Design Progress Reporting. For purposes of reporting design progress on an NDB procurement, report the design effort as fifty percent complete when the NDB IFB technical documents have been reviewed and approved by the Government and are ready for advertisement. Report the design effort as 100 percent complete when the Contractor prepared design documents have been reviewed and approved by the Government (i.e., at the conclusion of Phase B, Government Conformance Review, of the NDB contract).

5.4 Advertisement/Bidding Period

5.4.1 Pre-Bid Conference. Conduct a pre-bid conference and site visit at the project site approximately three weeks after the date of advertisement of the NDB project (or halfway through the bidding period). The purpose of the pre-bid conference is to highlight that the contract is of a Design/Build type containing requirements not usually found in conventional construction procurements. The pre-bid conference gives prospective bidders a better appreciation for the unique requirements of an NDB contract as well as an opportunity to question or confirm particular administrative and technical requirements of the IFB. The conference should be conducted by the appropriate EFD/EFA Contract Specialist with attendees including the EFD/EFA DM/AIC/EIC, ROICC, PWO, and customer. If deemed appropriate, the A/E - IFB Preparer's lead technical manager may also attend. The DM/AIC/EIC should present an overview of requirements relative to execution of Phase A, Design Documents, of the contract. The EFD/EFA Contract Specialist serves as the point of contact for the bidders and is responsible for assuring that all inquiries are documented and that responses are distributed to all potential bidders. The objective is to provide an information exchange between potential bidders and the Government to avoid the possibility of misinterpretation of the NDB IFB requirements. Request that potential bidders submit questions in advance of the conference, if possible, so that the EFD/EFA can prepare responses for the meeting. Every effort should be made to provide responses to bidder inquiries at the conference. Potential bidders should be highly encouraged to attend the pre-bid conference. To provide interested bidders with additional background information relative to the NDB process, it may be advisable to make copies of this Military Handbook available at the pre-bid conference.

5.4.2 Inquiries During Bidding. Like Traditional projects, inquiries during bidding (including inquiries at the pre-bid conference) should be administered through the EFD/EFA Contract Specialist. To the extent possible, questions should be answered by reference to the NDB IFB documents; guidance should be oriented toward performance guidance in contrast to the specific guidance used with conventional procurements. The Contract Specialist should obtain assistance from technical personnel in responding to inquiries during bidding when appropriate.

5.4.3 Amendments. Administer amendments as would be done for a conventional bid package, allowing sufficient time for potential bidders to adjust their bid prices. It is highly recommended that an amendment be issued documenting all bidders' questions and responses provided as a result of the pre-bid conference. Such an amendment should also include a list of those bidders attending the pre-bid conference as well as responses to additional inquiries made after the pre-bid conference. Issue additional amendments as needed to correct errors or clarify requirements in the NDB IFB documents.

5.5 Contract Award

5.5.1 Pre-Award Survey. After bid opening and upon identification of the apparent low bidder, the EFD/EFA Contract Specialist shall request that the apparent low bidder submit to the Government written evidence of his design and construction qualifications and experience as specified in the NDB IFB specification Section 01301, "Submittals at Design Completion (Phase A)". Section 01301 contains a one page form for the apparent low bidder's use in meeting this obligation. It is recommended that the low bidder facsimile this information to the Contract Specialist so as not to delay the award process. Upon receipt, the Contract Specialist should forward a copy of this information to the DM/AIC/EIC and ROICC for review. This review should include verification that the Contractor's constructed projects are of the same magnitude and type as the contract project and that the Contractor's design agent consists of registered architects and engineers who have designed facilities of similar type and magnitude as the contract project. Because the design and construction qualifications and experience required are essentially fundamental and non-extensive, it is anticipated that the time required for review and verification of this information should be minimal and therefore not cause delay to the award process. Only in extreme cases should there be a requirement to verify the Contractor's design and construction credentials through a visit to his designer's office or to constructed facilities.

5.5.2 Award Procedures. Contract award procedures generally follow those typically necessary for a conventionally advertised IFB sealed bid construction contract procurement. The solicitation, offer and award is executed on Standard Form 1442, Solicitation, Offer and Award. Contract time typically begins 15 calendar days after award of the contract to allow for the mailing of the Standard Form 1442 and the Contractor's submission and approval of the required bonds, Certificates of Insurance and Certification as to the percentage of work to be performed by the Contractor as specified in the NDB IFB specification Section 01010, "Summary of Work".

5.6 General Administration of the NDB Contract. In a Traditional construction procurement, the ROICC typically serves as the Contractor's point of contact with the Government and generally exercises full authority over execution of the work so far as it affects the interests of the Government. However, for an NDB contract, the ROICC may not possess the capability, expertise or corporate knowledge necessary to expeditiously administer efforts relative to execution and review of the Contractor's design (Phase A and Phase B of the contract). Such capability, expertise and knowledge typically resides with the EFD/EFA personnel who prepared or administered the preparation of the NDB IFB technical documents. For this reason, NDB procurements require that administration of the contract be shared between the EFD/EFA and ROICC office as detailed in the following paragraphs.

5.6.1 Government Points of Contact and Authority. On an NDB contract it is critical that the Contractor be apprised of the roles and responsibilities of the Government points of contact for the contract. The Contract Clauses (including modifications for NDB purposes) identify the Government representatives for overseeing and administering the NDB contract. Like Traditional construction procurements, the Contracting Officer designates the ROICC in Block 26 of Standard Form 1442 as the person exercising full authority over execution of the work. This authority enables the ROICC to direct the work as well as issue contract modifications. However, unlike Traditional contracts, the Contracting Officer also designates a Contracting Officer's Technical Representative (COTR) to oversee and administer Phase A and Phase B of the contract. The COTR will typically be the EFD/EFA DM/AIC/EIC responsible for overseeing the preparation of the IFB technical documents for the project. The COTR serves as the Government's liaison with the Contractor and the Contractor's Design Agent for technical matters and is responsible for overseeing execution of the technical requirements of the contract. The COTR may converse directly with the Contractor on such matters (much as a DM/AIC/EIC does in a Traditional contract for design services with an A/E firm), however, the COTR has no authority to initiate or direct changes to the contract.

5.6.2 Internal Contract Administration. Since administration of an NDB contract is essentially shared between the principal contracting office (i.e., the EFD/EFA via the Contracting Officer and the COTR) and the administrative contracting office (i.e., the ROICC), it is critical that cognizant personnel continually communicate in regard to contract actions and status. General guidance is as follows.

a) All written correspondence from the COTR to the Contractor shall be forwarded with copies to the appropriate EFD/EFA Contract

Specialist and ROICC. Significant verbal communication between the COTR and the Contractor shall be formalized via written correspondence to the Contractor with copies to the Contract Specialist and ROICC. Routine verbal communication between the COTR and the Contractor shall be properly documented in the COTR's project files, with copies forwarded to the Contract Specialist and ROICC.

b) All contract modifications, including those which may occur during Phase A and Phase B of the contract, shall be administered by the ROICC office. (Modifications during Phase A and Phase B of the contract may become necessary due to customer requested changes or the discovery of latent deficiencies in the IFB technical requirements. Such modifications should be fully coordinated between the COTR, ROICC, Major Claimant, Tenant/User and, if applicable, the A/E - IFB Preparer.) The COTR, through appropriate EFD/EFA personnel and, if applicable, the A/E - IFB Preparer, shall provide technical assistance (i.e., technical scope and estimates for change orders) for contract modifications when necessary. Administering contract modifications in this fashion assures contract purity and continuity of contract files. For modifications which may occur during Phase A and Phase B of the contract, administration in this fashion also helps assure timely issuance of contract modifications prior to construction and provides the ROICC with a strong corporate knowledge base of project details.

c) The EFD/EFA Contracting Officer will issue written approval of the Contractor's design upon the recommendation of the COTR. Such approval shall authorize the commencement of construction (Phase C) in accordance with the terms of the contract. The ROICC administers Phase C in accordance with the guidance specified herein.

5.7 Partnering. Prior to beginning work under Phase A, Design Documents, consideration should be given to scheduling a Partnering Session between Government representatives, the Contractor, and, if applicable, the A/E - IFB Preparer. Coordinating and arranging a Partnering Session can be time consuming and involve some additional expense for the participants, but it may be worthwhile in situations where the various personnel involved need to develop a team spirit as well as gain a better appreciation and understanding of the NDB process and the responsibilities of all parties to the contract. Before committing to a session, consult with appropriate EFD/EFA personnel to ascertain the benefits and effort involved in conducting a Partnering Session.

5.8 Administration of Phase A, Design Documents

5.8.1 Pre-Design Conference. As soon as practicable after the commencement of work, the COTR shall contact the Contractor for purposes of

establishing a mutually agreeable date to conduct a one day pre-design conference. The Contractor's design team (architect, structural engineer, mechanical engineer, fire protection engineer and electrical engineer) shall attend the meeting. Government representatives should include the COTR, EFD/EFA technical personnel responsible for preparing or reviewing the technical requirements for the NDB IFB package, the ROICC, PWO and Major Claimant. In cases where the NDB IFB drawings and specification were prepared via an A/E contract, the lead technical manager for the A/E - IFB Preparer should also attend. The conference should be conducted by the COTR and held at the EFD/EFA. The purpose of the meeting is to discuss administrative matters relative to the contract and to initiate the Contractor's design effort. The overall objective is to assure that the Contractor fully understands the contract requirements relative to execution of Phase A, Design Documents, to avoid his submitting an incomplete or unacceptable design. The following should be addressed at the conference.

5.8.1.1 Attendees, Points of Contact and Communications. The COTR should introduce all Government attendees and the A/E - IFB Preparer (if applicable), explaining their roles, responsibilities and authority relative to execution of the contract. The COTR should emphasize his role as the Government's administrative contact throughout Phase A and Phase B of the contract and the ROICC's role relative to the handling of contract changes, if necessary. Establish how communications are to be conducted with the Contractor, particularly, communications with the Contractor's Design Agent. Specifically, the Contractor should provide a point of contact for the COTR for discussing technical matters, explain the level of authority vested in this person, and indicate whether direct communication (both written and oral) between the COTR and this person is permissible or if such contact is to be conducted only through another individual within the Contractor's organization. Direct communication between the Contractor and the A/E - IFB Preparer is not permitted without COTR involvement, and the Contractor may feel that communication between his designer and the COTR should only be through an officer of his company. Establish how and to whom written correspondence and copies should be addressed between the Government and the Contractor. All written correspondence from the Contractor to the COTR should be copied to the ROICC and Contract Specialist. Establishing this line of communication is particularly important in cases where the A/E - Contractor's Design Agent is a subcontractor.

Relative to communications, the COTR should emphasize the importance of maintaining open and expedient communications during Phase A and Phase B of the contract. To expedite matters, maximum use of facsimile transmissions should be exercised by both the Contractor and COTR.

5.8.1.2 Contract Schedule. Conduct a brief overview of the contract schedule, i.e., establish specific dates for the completion of all Phases to the contract. Highlight that the Government may exercise its option to terminate the contract in the event that the Contractor's design does not comply with the IFB requirements and cannot be approved within the maximum time specified in the contract or in the event that the parties are unable to agree to functional or aesthetic modifications to the design.

5.8.1.3 Preparation of Design Documents. The COTR should review the overall format, content and distribution requirements for the Contractor's design (drawings, specifications, submittals register, design analyses and design certification) as detailed in Section 01301, "Submittals at Design Completion (Phase A)". Particularly, the Contractor should provide an estimate of the number of drawings anticipated and indicate the specific format he intends to use for preparation of the specifications, i.e., edited versions of industry standard guide specifications or the use of NFGS sections. Provide the Contractor with one set of full-size sepia mylars of the NDB IFB drawings and the number of copies of the NDB IFB drawings and specifications as specified in the project's edited version of NFGS-DB-00810, "Modifications to Contract Clauses". If the Contractor indicates a desire to use NFGS sections, the COTR should provide the Contractor with one hard copy of each specification section which the Contractor anticipates using. Review the overall content and format of the NDB IFB design documents with emphasis on the distinction between the performance and prescriptive specification sections. Highlight the following relative to format of the Contractor's design.

a) Drawings. Drawing format shall be "D" size with title blocks similar to the NDB IFB drawings. Each Contractor prepared drawing shall bear the stamp or seal and signature of the registered architect or appropriate engineer responsible for the work portrayed on that drawing. Emphasize that shop drawings are not permitted in lieu of design drawings. Review the extent and type of changes permitted to the civil and architectural NDB IFB drawings as specified in NDB IFB specification Section 01301, "Submittals at Design Completion (Phase A)" and the architectural performance specification sections of the NDB IFB. Specifically, the civil IFB drawings may only be modified to the extent necessary to reflect site modifications necessary in the event the Contractor's proposed building is larger than the dimensions indicated in the IFB drawings. The architectural IFB drawings shall be redrawn by the Contractor to accurately reflect the proposed design and to indicate the information required by the IFB performance specification sections, but the functional aspects of the architectural design as reflected in the IFB drawings shall remain the same, i.e., the floor plan arrangement, room finishes, door sizes and types, window types, cabinetry features, etc.

shall remain the same. Refer the Contractor to the architectural performance specification sections of the IFB for changes which are permitted to the architectural IFB drawings.

b) Specifications. Review the format for the specifications cover page, table of contents and technical sections. Emphasize that Division 1 specification sections of the NDB IFB shall be resubmitted without change. Review the extent of changes permitted to the NDB IFB technical prescriptive specification sections which are to be resubmitted by the Contractor. Indicate that the Contractor is to develop new technical prescriptive specification sections to reflect the specific materials, products and systems he has chosen to meet the requirements of the NDB IFB performance specifications. Such specifications shall be prepared at the Mediumscope level of detail as prescribed by the CSI. Highlight that all technical sections of the Contractor prepared specification shall include proprietary product information as addenda to the sections but that the submission of product information only in lieu of a properly prepared specification is not acceptable. Emphasize that construction submittal types and products identified in the NDB IFB performance specifications shall be repeated in the appropriate prescriptive specification sections developed by the Contractor.

c) Submittals Register. Explain that a partially completed submittals register is to be submitted with the Contractor's design. All construction submittals shall be approved by the Contractor via the Contractor's QC organization except for those construction submittals specifically reserved for Government approval in the IFB specification sections and as specified in NDB IFB specification Section 01301, "Submittals at Design Completion (Phase A)". Indicate that for construction submittals to be approved by the Government, the Government will indicate the specific reviewing authority during the review of the Contractor's design and, once approved, will return the submittals register to the Contractor with such information filled in for his subsequent submittal and use during construction. A submittals register with planned construction submittal dates filled in is required with the Contractor's submission of the original design documents.

d) Design Analyses. Explain that a separately bound design analyses is required for each design discipline. Calculations shall cite the criteria from which the formulae were extracted. Highlight that the signature and seal of the appropriate registered professional engineer responsible for the work shall appear on the cover page of the calculations for each engineering discipline.

e) Design Certification. Review the format for the Contractor's design certification (Attachment B to NDB IFB specification Section 01301,

"Submittals at Design Completion (Phase A)") and the design document distribution requirements. Highlight that:

(1) Phase B, Government Conformance Review, does not begin until the Government has received the Contractor's design for review and approval. Partial or incomplete submissions will not be reviewed and will be immediately returned to the Contractor for completion and resubmission at his expense of contract time.

(2) In the case where the NDB IFB technical documents were prepared by an A/E under contract with the Government, the Contractor is to forward the specified number of copies of his design documents direct to the A/E - IFB Preparer. The A/E - IFB Preparer will review the Contractor's design for conformance to the requirements of the NDB IFB, forwarding comments recommending approval or rejection of the design to the COTR. The EFD/EFA Contracting Officer will approve the design and the start of construction upon the recommendation of the COTR based upon the A/E - IFB Preparer's review.

(3) Phase C, Construction, cannot commence until the Contractor has been notified in writing by the Contracting Officer that the Government has reviewed and approved the Contractor's design. Review the procedures for obtaining Government signatures of the approved design drawings and specifications, highlighting that such signatures are required on the original drawings and specifications before any construction work beyond mobilization, temporary utilities and surveying is permitted. Indicate that the Contractor shall make the appropriate distribution of copies of the approved and Government signed design documents in accordance with the terms of the contract and, at the same time, return all original design documents to the Government (COTR) before construction work beyond mobilization, temporary utilities and surveying may proceed.

5.8.1.4 Design Coordination. Review the Contractor's responsibilities relative to coordination of the design. Emphasize that the Government's review of the Contractor's design (Phase B) is to check for conformance to the requirements of the NDB IFB and is not a technical review for accuracy and coordination. Design accuracy and coordination are the responsibility of the Contractor.

5.8.1.5 Technical Requirements and Criteria. EFD/EFA and Contractor Design Agent personnel should review specific design submittals and technical requirements of the NDB IFB package, with assistance from the A/E - IFB Preparer as applicable. Review pertinent criteria which applies to the design of the project, particularly fire protection and handicapped accessibility. Explain that the NDB IFB documents are the criteria basis for the Contractor's design and govern in the case of differences between the NDB IFB documents and

codes, specifications and standards referenced in the NDB IFB documents. Past experience at such pre-design conferences has been that the Contractor has completed a preliminary design and may require clarification or direction regarding specific technical requirements of the IFB. For projects involving Government furnished material or equipment or Government-installed work, make sure the Contractor understands his obligations under the contract relative to these items. For projects requiring that the Contractor secure operating permits for the building, remind the Contractor of the need to expeditiously handle such items during Phase A, Design Documents, of the contract so as not to delay ultimate occupancy of the facility.

5.8.1.6 First Pre-Construction Conference. The ROICC should conduct the first of two pre-construction conferences in conjunction with the pre-design conference. At the pre-design conference, the ROICC should address administrative items relative to progress payments, construction schedules, etc. Emphasis should be placed on the importance of the timely preparation and submittal of a Contractor prepared Safety Program (sometimes called a Safety Plan, Accident Prevention Plan or Activity Hazard Analysis) and Quality Control (QC) Plan. Even after the Contractor's design has been approved by the Government, construction at the site may not commence until the Government has reviewed and approved the Safety Program and only mobilization, temporary utilities and surveying may be done prior to the Government's review and approval of the QC Plan. Requirements for development and submission of these items should be addressed at this pre-design conference. The Contractor should be prepared to identify his designated QC manager for Government approval at this time. Highlight that payment for design will not be made until the Government has received, reviewed and approved the Contractor's design submittal and schedule of prices.

5.8.1.7 Conference Minutes. At the conclusion of the meeting, the COTR should establish an anticipated date for the Design Progress Meeting at the A/E - Contractor's Design Agent's office. Pre-design conference minutes should be prepared by the COTR and sent to the Contractor with copies distributed to all attendees as soon as practicable after the meeting. The minutes should direct the Contractor to immediately contact the COTR if he feels there is a discrepancy in the meeting minutes.

5.8.2 Design Progress Meeting. A one day informal design progress meeting should be scheduled by the COTR and Contractor at approximately one-third of the way through Phase A, Design Documents, of the contract. The Contractor's design team (architect, structural engineer, mechanical engineer, fire protection engineer and electrical engineer) shall be available for the meeting. Government representatives should include the COTR and Major Claimant. In cases where the NDB IFB drawings and specification were

prepared via an A/E contract, the lead technical manager for the A/E - IFB Preparer should also attend. The meeting should be held at the A/E - Contractor's Design Agent's office. The purpose of the meeting is to assess the Contractor's design progress relative to the contract schedule, note any areas where the design may not be conforming to the requirements of the IFB and to provide general technical guidance. Meeting minutes should be prepared by the COTR and sent to the Contractor with copies distributed to all meeting attendees. Copies of the meeting minutes should also be sent to the ROICC and PWO. The minutes should include an assessment of the Contractor's design progress with an indication of the anticipated date for submission of the complete design package and direction to the Contractor to immediately contact the COTR if he feels there is a discrepancy in the meeting minutes.

5.8.3 Confirmation of Complete Submission. Approximately one week prior to the scheduled or anticipated submission of the Contractor's design documents (completion of Phase A), the COTR shall contact the Contractor to confirm that the Contractor anticipates meeting the Phase A contract completion date and that all required design documentation will be complete. The COTR should also remind the Contractor that distribution of complete design documentation shall be made on the same day and in the same manner to all reviewing components as specified in NDB IFB specification Section 01301, "Submittals at Design Completion (Phase A)". The purpose of this contact is to allow the Government to coordinate efforts for execution of Phase B, Government Conformance Review, and to avoid delays due to the Contractor's submission of an incomplete design documentation package. To assist in this endeavor, the COTR should request that the Contractor facsimile the following documentation as an indication of the level of completion of the required design documentation:

- a) An index of design drawing titles.
- b) Table of contents for the project specification.
- c) The cover sheet of the calculations for each engineering discipline (Structural, Mechanical - HVAC, Mechanical - Plumbing and Electrical) with the signature and seal of the appropriate registered professional engineer responsible for the work.
- d) One page from the Submittals Register indicating construction submittals required for one technical prescriptive specification section developed by the Contractor.

Upon receipt of this facsimile, the COTR should review the documentation in comparison to the complete overall design submission

requirements of the IFB package and immediately notify the Contractor if it appears that design submittal items may be missing or incomplete. Based upon this review and discussion, the COTR should notify all appropriate Government personnel and the A/E - IFB Preparer (if applicable) of the anticipated date of receipt of the Contractor's complete design submission for review and approval.

5.9 Administration of Phase B, Government Conformance Review

5.9.1 General. Proper Government administration of Phase B, Government Conformance Review, is essential to the success of an NDB project. Unlike Government reviews of design submissions for traditional projects, the consequences of not performing a proper and timely review of the Contractor's design submission for an NDB project can be far more costly. Conflicting, confusing or late review comments can result in construction delays and increased costs. Accordingly, upon receipt of the Contractor's design submission, the COTR should notify all reviewers (Government and A/E - IFB Preparer, if applicable) of the need to adhere to the purpose and schedule for the review process as detailed in this Military Handbook. In essence, review of the Contractor's design submission should be given the same attention and priority as that typically afforded construction submittals in a conventional project. Hence, the COTR should confirm that all reviewers are aware of the importance of completing pertinent and timely reviews and are ready to proceed.

5.9.2 Purpose. The purpose of the Government's review of the Contractor's design is to check for conformance to the requirements of the NDB IFB. It is not a technical review in the sense that detailed checking of the Contractor's drawings, specifications and design analyses is not performed; constructability and coordination are the Contractor's responsibilities and the Contractor is not obligated to provide design documentation beyond that amount required by the IFB to illustrate conformance to the performance requirements. The objective of the conformance review is to confirm that the Contractor's design conforms to the performance requirements of the IFB and to specifically identify those areas where the Contractor's design does not conform to the requirements of the IFB. Each of the NFGS-DB-XXXXX performance guide specifications specify the means by which the Government will check for conformance to specific performance requirements. It must be kept in mind that the IFB not only contains all the requirements to which the Contractor must adhere, but it also represents the only requirements he is obligated to meet. Therefore, it is critical that Government review comments are limited to those concerned with conformance to the IFB requirements; review comments must avoid imposing revisions or modifications to the Contractor's design that reflect only personal preference or alternative solutions.

5.9.3 Scheduling. Phase B, Government Conformance Review, commences upon receipt by the Government of the 100 percent complete design documents from the Contractor. NDB IFB specification Section 01010, "Summary of Work", specifies the contract time allotted for completion of Phase B. For the types of projects recommended for procurement via the NDB process, this Phase of the contract will typically be 30 days. To assure that the Government's review is completed within the allotted 30 days, the following schedule of activities should be followed:

ACTIVITY	ALLOTTED CALENDAR DAYS
Perform General Conformity Check	2
Perform Conformance Review	15
Forward Review Comments to COTR (via facsimile or overnight delivery)	2
COTR Collates/Discusses Comments with reviewers and EFD/EFA technical personnel	5
COTR meets with Contracting Officer to discuss findings and arrive at a recommendation (i.e., to approve or disapprove the Contractor's design)	1
COTR prepares appropriate letter of notification to Contractor for EFD/EFA Contracting Officer signature	2
Contracting Officer signs letter and forwards to Contractor via overnight delivery	3
TOTAL	30

This schedule is based on the presumption that the general conformity check of the design reveals that the Contractor's design documentation is essentially complete and that the Government's conformance review can therefore proceed. See paragraphs 5.9.4.2, 5.9.4.3 and 5.9.5.2 for direction on how to proceed in the event that the Contractor's design documentation is incomplete.

5.9.4 Method of Accomplishing the Conformance Review

5.9.4.1 General. Upon completion of Phase A, Design Documents, the Contractor makes distribution of the appropriate number of copies of the design documentation to the addressees specified in NDB IFB specification Section 01301, "Submittals at Design Completion (Phase A)". While these addressees include the PWO, Major Claimant and ROICC, the primary effort relative to execution of the Government's conformance review is performed by the personnel who prepared the NDB IFB drawings and specifications, i.e., the A/E - IFB Preparer or the EFD/EFA.

5.9.4.2 Conformance Review by A/E - IFB Preparer. For NDB projects where the IFB drawings and specifications were prepared by an A/E, the A/E - IFB Preparer should be tasked with performing the Government's conformance review of the Contractor's design. In such a case, the EFD/EFA (COTR and technical personnel who reviewed the IFB drawings and specifications prepared by the A/E - IFB Preparer) should not duplicate this review; doing so only increases Government expenditures to accomplish the review and may only serve to complicate the process by increasing the potential for conflicting comments. (However, because the NDB contract requires that the Contractor's approved original design drawings and project specifications cover page be signed by Government representatives prior to proceeding with full construction, it is critical that the COTR provide copies of the A/E - IFB Preparer's conformance review comments regarding the Contractor's design to the individual EFD/EFA design discipline personnel who reviewed and approved the A/E prepared IFB package and who will ultimately sign the Contractor's original design drawings and project specifications cover page. This gives such personnel the opportunity to keep abreast of the status of the Contractor's design and also serves as a quality assurance measure of the A/E - IFB Preparer's conformance review work.)

Within two calendar days of receipt, the lead technical manager for the A/E - IFB Preparer, in consultation with appropriate technical personnel, shall perform a general conformity check of the Contractor's design documentation. The purpose of the general conformity check is to ascertain that the design documentation is essentially complete and properly formatted and that the conformance review may therefore proceed. In the event that the general conformity check reveals the Contractor's submission to be incomplete, the A/E - IFB Preparer shall immediately notify the COTR and provide a concise, typewritten list of missing or incomplete design documentation citing the specific IFB specification sections, pages and paragraph numbers which require the documentation for each missing or incomplete item. The COTR will take the appropriate action as specified in paragraph 5.9.5.2, and the A/E - IFB Preparer shall not proceed with the conformance review until a complete design submission is received from the Contractor.

Some discretion must be exercised when rejecting a Contractor's submission as incomplete. Minor elements missing from the Contractor's submission may not warrant rejection of the Contractor's entire design package as incomplete if other design documentation can be easily used to establish conformance to the IFB requirements and the missing elements could be readily incorporated by the Contractor through review comments. The key is that conformance to the requirements of the IFB can be established by the submitted design documentation. For example, missing details may not warrant rejection of the Contractor's design as incomplete if other drawings or the specifications clearly show design intent and conformance to the IFB, whereas missing engineering calculations will almost certainly warrant rejection of the Contractor's submission as incomplete.

When the general conformity check indicates that the Contractor's design submission is complete, the lead technical manager for the A/E - IFB Preparer shall distribute copies of the Contractor's design to his appropriate technical personnel to perform the conformance review. Each technical reviewer shall prepare written review comments (if any) which specifically list non-conforming elements of the Contractor's design. For each review comment, reference shall be made to the specific IFB specification section, page and paragraph number with which the item does not conform. The review shall be performed in the number of calendar days stipulated paragraph 5.9.3 or as may otherwise be specified in the A/E - IFB Preparer's contract. When the technical reviewers complete their work, the lead technical manager for the A/E - IFB Preparer shall collate all comments by design discipline, meet with the technical reviewers, and, based upon the kind and extent of review comments, prepare a cover letter to the COTR which recommends approval of the Contractor's design subject to the proper resolution of the review comments or rejection, correction and resubmission of the Contractor's design. Recommendations to approve the design subject to the proper resolution of review comments should be limited to cases where review comments are non-extensive and minor (the design is slightly non-conforming) and confirmation of proper correction and ultimate incorporation in the Contractor's final design documentation can be quickly, easily and readily verified by the COTR without the need for further A/E - IFB Preparer review or consultation. The cover letter and enclosed comments should be sent via facsimile or overnight delivery to the COTR. A sample cover letter is included as Appendix C. For designs disapproved by the Contracting Officer, the Contractor's written responses to the A/E - IFB Preparer's comments will be provided with the Contractor's resubmission of the design. For designs approved by the Contracting Officer, the Contractor's written responses to the A/E - IFB Preparer's comments (if any) will be received by the COTR who will verify that the Contractor's final design documentation has been properly corrected to address the comments before placing Government (EFD/EFA) signatures on the

Contractor's original drawings and specifications cover page. Correspondence from the COTR and Contracting Officer to the Contractor during the Government's conformance review will be copied to the A/E - IFB Preparer so that the A/E - IFB Preparer is kept abreast of the progress and status of the NDB contract.

Contracts with A/E - IFB Preparers should be negotiated with the presumption that a resubmission of the Contractor's design will be necessary and that one half of the A/E - IFB Preparer's level of effort to perform the initial conformance review will be required to review the Contractor's resubmission of the design.

5.9.4.3 Conformance Review by EFD/EFA Technical Personnel. For NDB projects where the IFB drawings and specifications were prepared by the EFD/EFA, the conformance review is performed in the same manner and by the same schedule as a conformance review by an A/E - IFB Preparer. The COTR, in consultation with appropriate EFD/EFA technical personnel, performs a general conformity check and, if necessary, takes the appropriate action as specified in paragraph 5.9.5.2 for incomplete or partial Contractor design submissions and distributes copies of the Contractor's complete design to the appropriate EFD/EFA technical personnel to perform the conformance review. When the technical reviewers complete their work, the COTR shall collate all comments by design discipline (including those received from other Government reviewers), meet with or discuss comments with the reviewers and, based upon the kind and extent of review comments, prepare a preliminary recommendation to the Contracting Officer which recommends approval of the Contractor's design subject to the proper resolution of the review comments or rejection, correction and resubmission of the Contractor's design.

5.9.4.4 Other Government Reviewers. While the A/E - IFB Preparer or EFD/EFA is reviewing the Contractor's design submission, the appropriate PWO, Major Claimant and ROICC office have also received the Contractor's design submission for review. Like the A/E - IFB Preparer or the EFD/EFA, it is critical that such reviewers also keep in mind the purpose and schedule for the review, limiting review comments to those concerning aspects of the Contractor's design which do not conform to the requirements of the IFB and forwarding all such review comments to the COTR in a timely fashion for proper resolution. The COTR will meet with or otherwise contact such reviewers to discuss their comments. For designs disapproved by the Contracting Officer, the Contractor's written responses to the PWO's, Major Claimant's and ROICC's comments will be provided with the Contractor's resubmission of the design. For designs approved by the Contracting Officer, the Contractor's written responses to the PWO's, Major Claimant's and ROICC's comments (if any) will be received by the COTR who will verify that the Contractor's final design documentation has been properly corrected to address the comments before placing Government (EFD/EFA) signatures on the Contractor's original

drawings and specifications cover page. Correspondence from the COTR and Contracting Officer to the Contractor during the Government's conformance review will be copied to these reviewers so that they are kept abreast of the progress and status of the NDB contract.

5.9.4.5 Follow -Up Actions. When the conformance review has been completed by all reviewing components, the COTR will discuss all conformance review comments and recommendations with all Government reviewers, EFD/EFA technical personnel, and, if applicable, the A/E - IFB Preparer. The COTR will then meet with the EFD/EFA Contracting Officer to discuss the findings, arrive a final recommendation to approve or disapprove the Contractor's design and prepare an appropriate letter of notification to the Contractor for the EFD/EFA Contracting Officer's signature. The Contracting Officer will sign and forward the letter, along with appropriate comments, to the Contractor.

5.9.5 Actions Possible Relative to the Conformance Review. The following paragraphs discuss administrative actions which are, or may become, necessary during the course of the Government's conformance review process.

5.9.5.1 Late Submission or Resubmissions. Because an NDB contract requires that the Contractor utilize professional architects and engineers to execute the design, it is presumed that a design submission will ultimately be received for review and approval by the Government. In fact, the purposes to conducting a Pre-Design Conference, Design Progress Meeting and Confirmation of Complete Submission during Phase A, Design Documents, of the contract is to assure that the Contractor is progressing in a timely fashion with his design efforts. However, there may still arise cases where the Contractor's design submission is unreasonably late, causing concern over the ability of the Contractor to complete both the design and construction work in a timely and acceptable fashion. In other cases, the Government may find the Contractor's initial design submission to not be in compliance with the requirements of the IFB and subsequent resubmissions of the design do not properly address the Government's review comments and do not show significant progress toward meeting the requirements of the IFB. NDB IFB specification Section 01010, "Summary of Work", specifies the maximum time permitted for submission, review and approval of the Contractor's design, after which time the Government may exercise its option to terminate the contract. Where the COTR has reason to suspect that the Contractor may be unable or unwilling to execute the work in a timely and satisfactory manner which results in Government authorization to proceed with construction, he shall discuss such concerns with the Contracting Officer and ROICC who will advise on the proper course of action to be taken. Such action may involve normal default proceedings, including the issuance of

a notice of potential default and subsequent cure notice to the Contractor.

5.9.5.2 Incomplete Submissions. If the results of the general conformity check performed as the first step of the Government's conformance review reveal the Contractor's design submission to be incomplete, the COTR shall immediately notify the Contractor utilizing the sample format shown in Appendix D. The COTR shall also immediately notify all reviewers that the Government's contractually established review period (typically 30 days) will be adjusted to commence upon receipt of the revised and complete design documents from the Contractor.

5.9.5.3 Submissions Not Conforming to the IFB Requirements. If the results of the Government's conformance review reveal that the Contractor's design submission does not conform to the requirements of the IFB and the Contracting Officer agrees with the COTR's recommendation to disapprove the Contractor's design, the COTR shall prepare an appropriate letter of notification to the Contractor for the Contracting Officer's signature. A sample format for such a letter is shown in Appendix E.

5.9.5.4 Submissions Not Conforming to Functional/Aesthetic Requirements. Refer to NFGS-DB-01010, "Summary of Work" for information and contract provisions relative to Contractor design submissions which do not satisfy the Government's functional and aesthetic requirements. The COTR shall consult with the Contracting Officer, Contract Specialist and ROICC for administrative procedures to follow in the event that the contract parties are unable to mutually agree on functional and aesthetic modifications to the Contractor's design at no change in contract price or schedule.

5.9.5.5 Submissions Conforming to IFB and Functional/Aesthetic Requirements. If the results of the Government's conformance review reveal that the Contractor's design submission conforms to the requirements of the IFB or is only slightly non-conforming and the Contracting Officer agrees with the COTR's recommendation to approve the Contractor's design, the COTR shall prepare an appropriate letter of notification to the Contractor for the Contracting Officer's signature. A sample format for such a letter is shown in Appendix F.

5.9.6 Government Signatures. When the Contractor's design has been reviewed and approved by the Government, the Contractor submits the original mylar drawings and project specification cover page to the COTR for obtaining appropriate Government signatures. Upon receipt of these original design documents, the COTR checks that all comments, if any, regarding slightly non-conforming aspects of the Contractor's design have been properly resolved and reflected in the Contractor's original drawings and specifications. The COTR then proceeds to procure appropriate Government signatures, returning the

original Government signed mylar drawings and project specification cover page to the Contractor within two working days of receipt via overnight delivery service.

Like a conventionally designed project, the EFD/EFA Branch Head for each design discipline signs applicable original mylar drawings while the EFD/EFA Fire Protection Branch Head and EFD/EFA Design Division Director sign all original mylar drawings. The EFD/EFA Specifications Branch Head signs the original cover sheet of the project specification. However, unlike traditional projects, such signatures do not attest to the technical accuracy of the design, but, rather, such signatures merely signify that the design has been reviewed (either by EFD/EFA personnel or the A/E - IFB Preparer) and found to be in compliance with the requirements of the IFB. In the case where the Government's conformance review was performed by the A/E - IFB Preparer, such signatures constitute acknowledgement that the A/E - IFB Preparer's comments, if any, have been properly addressed. Of equal importance, EFD/EFA signatures on the Contractor's original drawings and on the project specification cover sheet distinguish such drawings and specifications from previous unapproved versions. Therefore, the ROICC and other field personnel can easily ascertain whether copies of design drawings and project specifications in their possession are, in fact, the approved design documents to be used for construction of the facility.

In accordance with the terms of the contract, construction beyond mobilization of storage and office trailers, temporary utilities and surveying cannot commence until the Government has signed the original mylar drawings and original project specification cover page and the ROICC and other Government personnel have received the distribution from the Contractor of Design Documents for Construction (i.e., copies of the design drawings and specifications signed by the Government).

5.9.7 Miscellaneous Administrative Items for the COTR. The following paragraphs enumerate some miscellaneous administrative actions to be performed by the COTR during Phase B of the NDB contract.

5.9.7.1 IFB Drawings and Specifications. To facilitate Government conformance review efforts, the COTR should retain approximately 10 to 15 sets of the IFB drawings and specifications which were reproduced for bidding purposes. Include with these sets copies of all amendments which were issued during the bidding period. Copies of these IFB drawings and specifications and amendments during bidding should be distributed to the individual Government reviewers, and the A/E - IFB Preparer if applicable, when performing the Government's conformance review of the Contractor's design documents.

5.9.7.2 NAVFAC Drawing Numbers. The COTR shall provide NAVFAC drawings to the Contractor for all Contractor submitted design drawings, including those IFB drawings which the Contractor revises, redraws or otherwise resubmits in accordance with the terms of the contract. Because the Contractor prepared design drawings will bear the same construction contract number as that which appears on the IFB drawings, assigning new NAVFAC drawing numbers to the entire set of Contractor prepared and submitted design drawings helps distinguish them from drawings issued with the IFB. Forward NAVFAC drawing numbers to the Contractor with the approval of his design documents (see Appendix F).

5.9.7.3 Submittals Register (and Submittals Reviews). During the Government's conformance review of the Contractor's design documents, the COTR, with assistance from the EFD/EFA Specifications Branch and the ROICC, shall fill in Column (e) of the Submittals Register to indicate the specific Government reviewers for construction submittals requiring Government approval. The vast majority of construction submittals in an NDB contract will be approved by the Contractor via his Quality Control (QC) organization, utilizing appropriate members of the A/E - Contractor's Design Agent to review and certify construction submittals. NFGS-DB-01301, "Submittals at Design Completion (Phase A)", identifies those construction submittals in an NDB contract which will require Government approval. The following is suggested guidance for designating specific Government reviewers in Column (e) of the Submittals Register for those construction submittals requiring Government approval:

<u>Construction Submittal Type</u>	<u>Government Reviewer</u>
Fire Protection	EFD/EFA Fire Protection Engineer or, if approved by EFD/EFA, the A/E - IFB Preparer
Color Selections	EFD/EFA or A/E - IFB Preparer
Sample Panels and Sample Installations	ROICC
Division 01 and Administrative Submittals	ROICC
OMSI Manual	EFD/EFA or A/E - IFB Preparer

5.9.7.4 Design Progress Reporting. When the Contractor's design has been reviewed and approved by the Government, the COTR shall report the design effort as 100 percent complete.

5.10 Administration of Phase C, Construction

5.10.1 General. For the most part, once the Government's Conformance Review (Phase B of the contract) has been completed and the Contractor's design has been approved by the Government, Construction (Phase C of the contract) of an NDB project proceeds much in the same manner as that of a conventional project. At this point, the ROICC office oversees all matters related to execution of the work. The following paragraphs highlight some unique administrative aspects of an NDB contract during the construction phase.

5.10.2 Commencement of Construction. Much like many Traditional contracts, work at the site may not commence until the Government has reviewed and approved the Contractor's Safety Program and no work beyond mobilization of storage and office trailers, temporary utilities and surveying may take place until the Contractor's QC Plan has been approved by the Government. Unlike Traditional contracts, however, an NDB contract further prohibits work at the site until the Contractor's design has been approved by the Government and limits work at the site to mobilization of storage and office trailers, temporary utilities and surveying until such time as the ROICC receives copies of the Government approved and signed design documents from the Contractor. EFD/EFA personnel signatures on these copies of the Contractor prepared drawings and specifications assure the ROICC that he is in possession of the final design documents to be used for construction. The Contractor is advised of these limitations on proceeding with construction when the Government issues approval of his design documents (see Appendix F).

5.10.3 Second Pre-Construction Conference. The ROICC should hold a second pre-construction conference at the project site as soon as practicable after Government approval of the Contractor's design (the first pre-construction conference is held in conjunction with the pre-design meeting at the start of Phase A, Design Documents, of the NDB contract). This second pre-construction conference gives the Contractor an opportunity to meet the customer and ask questions about design implementation and site conditions, restrictions and constraints. The Coordination and Mutual Understanding Meeting to discuss implementation of the QC program should also be held in conjunction with this second pre-construction conference.

5.10.4 Schedule of Prices. The schedule of prices for an NDB contract is prepared by the Contractor and submitted for approval by the Government within five days after approval of the Contractor's design and authorization to commence construction. It is similar in all respects to a schedule of prices prepared for a conventional project except that it is to contain a line item for the Contractor's cost to design as a percentage of the construction cost. No payments for design are to be made until the Government has received,

reviewed and approved the Contractor's design and schedule of prices. The ROICC should consult with the COTR to determine if the Contractor's price for his design effort appears reasonable before authorizing payment.

5.10.5 Construction Submittal Reviews. See paragraph 5.9.7.3 for specific information. This paragraph enumerates construction submittals requiring Government approval and the indicates specific Government reviewer. Of special note is that unlike Traditional contracts, the Contractor (through the A/E - Contractor's Design Agent) is tasked with not only submitting O&M data packages but is also tasked with preparing an OMSI manual for the project. Specifics on preparation and submittal of the OMSI manual may be found in NDB IFB specification Section 01730, "Operation and Maintenance Data". Note that this section requires the submittal of draft and complete OMSI manuals for review and approval by the Government prior to the contract completion date (end of Phase C, Construction).

5.10.6 Record Drawings. Like Traditional projects, the Contractor is responsible for maintaining two sets of full-size marked up prints of the design drawings at the project site to reflect "as-built" conditions. However, unlike Traditional projects, the Contractor (via the A/E - Contractor's Design Agent) is also tasked with preparing record drawings showing "as-built" conditions upon completion of construction. To prepare the record drawings the Contractor requests that the Government provide him the original mylar design drawings (kept at the EFD/EFA). Detailed instructions for preparation of the record drawings are contained in NDB IFB specification Section 01700, "Project Closeout". When completed, the Contractor delivers the record drawing mylars and sets of marked-up prints to the ROICC. The ROICC shall forward the record drawings and prints to appropriate personnel at the EFD/EFA for reproduction, filing and distribution. Final payment to the Contractor shall not be approved until the record drawings are delivered to the ROICC.

5.10.7 General Guidance for Administration of Phase C, Construction

5.10.7.1 Criteria. For the most part, administration of construction for an NDB contract can follow normal procedures used for conventional projects. The ROICC may need to develop some familiarity with local codes and industry standards referenced in the IFB specification and Contractor prepared project specification when administering and inspecting the work.

5.10.7.2 Design Errors and Omissions. The ROICC should not allow the Contractor to draw him into answering design questions or to assist in correcting or resolving design errors and omissions in the Contractor's approved design documents. Likewise, the QC Manager should also not be involved with developing solutions to correct design errors and omissions.

The QC Manager's and ROICC's sole functions are quality control and quality assurance respectively. The Contractor is responsible for the quality and accuracy of his design (see NFGS-DB-01010, "Summary of Work" and NFGS-DB-01301, "Submittals at Design Completion (Phase A)"). Via his project superintendent and design agent, the Contractor must develop solutions to correct design errors and omissions in his approved design documentation and obtain Government approval of the correction. In such cases, the ROICC's responsibility is to assure that the corrections proposed by the Contractor conform to the original IFB requirements. To aid in this endeavor, the ROICC may seek assistance from the EFD/EFA and A/E - IFB Preparer, if applicable. The intent is to assure that the Government does not assume liability for the design by offering or proposing design solutions and to discourage reliance by the Contractor on Government management and inspection.

For errors and omissions discovered during construction relative to the design work done by the EFD/EFA or A/E - IFB Preparer (eg., site design or interior finishes), the ROICC should seek assistance from the appropriate individuals responsible for the design, coordinating the design correction and executing the subsequent change order, if deemed appropriate.

5.10.7.3 Variations and Value Engineering Change Proposals (VECPs). During design development (Phase A of the contract) but prior to the Government's approval of his design (conclusion of Phase B), the Contractor is free to make changes to his design affecting the choice of materials, processes, systems, etc. without the need to secure Government approval for such changes. Cost savings or economies associated with such changes belong solely to the Contractor. At this stage, the Government's only interest is that the Contractor's final design conforms to the requirements of the IFB. After the Contractor's design has been approved by the Government, however, the Contractor's design documentation (design drawings and project specification) become a part of the contract drawings and specifications in accordance with NFGS-DB-00501, "List of Drawings", included in the NDB IFB solicitation. The contract drawings and specifications also include the IFB drawings and specifications. Accordingly, during construction (Phase C), deviations from the Government approved design documents prepared by the Contractor must be handled as requests for variations or VECs as appropriate. When considering such variations and VECs, the ROICC and, if appropriate, the EFD/EFA and A/E - IFB Preparer, must not only consider the requested or proposed variation or change in relation to the Contractor's design documents but also in relation to the requirements of the IFB before authorizing approval or issuing a contract modification. Naturally, the Government should receive or share in the cost benefits, if any, from these changes.

APPENDIX A
TYPICAL A/E - IFB PREPARER SCOPE OF WORK

<u>Type of Service</u>	<u>Completion Level</u>	<u>Type of Effort</u>	<u>Instructions for Preparation</u>
Engineering Services (Section A)			
1. Meetings (eg., pre-design, orientation, specification brief, pre-bid conference, etc.)	100%	Traditional	See also MIL-HDBK-1006/5 (See Section 5)
2. Site Investigation			
a. Existing Conditions Survey	100%	Traditional	
b. Topographic Survey	100%	Traditional	
c. Geotechnical Investigation (i.e., soil borings, probes, topsoil tests and reports)	100%	Traditional	
d. Asbestos Samples/Analysis (if applicable)	100%	Traditional	
e. Lead Paint Samples/Analysis (if applicable)	100%	Traditional	
f. Environmental Permit Requirements and Permit Applications (if applicable)	100%	Traditional	
3. Interior Design (Building Finishes Package/Boards)	100%	Traditional	
4. Value Engineering (if applicable)	100%	NDB	MIL-HDBK-1006/5 (See Section 5)
5. Printing/Reproduction/Mailing	100%	Traditional	
6. Travel and Subsistence	100%	Traditional	
Design Services (Section B)			
1. Drawings			MIL-HDBK-1006/5
a. Existing Conditions/Removal/Demolition Plans & Details	100%	Traditional	
b. Site Plans & Details (civil work and mechanical utilities, etc.)	100%	Traditional	
c. Architectural			
1) Floor Plan(s)	Schem	NDB	MIL-HDBK-1006/5
2) Building Elevations (optional)	Schem	NDB	MIL-HDBK-1006/5
3) Door Sched./Elevations	90%	NDB	MIL-HDBK-1006/5
4) Window Sched./Elevations (if necessary)	90%	NDB	MIL-HDBK-1006/5
5) Finish/Color Schedule	100%	Traditional	
6) Cabinetry, Carpentry & Millwork Plans & Elev. (optional)	90%	NDB	MIL-HDBK-1006/5

APPENDIX A (Continued)

<u>Type of Service</u>	<u>Completion Level</u>	<u>Type of Effort</u>	<u>Instructions for Preparation</u>
Design Services (Section B) (Continued)			
2. Specifications			MIL-HDBK-1006/5
a. Technical Performance Sections (with CSI Uniformat designations)			
B1000 Structural System	100%	NDB	DB-NFGS
B1010 Supported Floor System	100%	NDB	DB-NFGS
B2010 Exterior Wall System	100%	NDB	DB-NFGS
B2020 Doors and Windows	100%	NDB	DB-NFGS
B3000 Roof System	100%	NDB	DB-NFGS
C1010 Interior Partitions Systems	100%	NDB	DB-NFGS
D2000 Plumbing Systems	100%	NDB	DB-NFGS
D3000 Heating, Ventilating and Air Conditioning Systems	100%	NDB	DB-NFGS
D5000 Interior Electrical, Lighting and Communications Systems	100%	NDB	DB-NFGS
E2010 Cabinetry, Carpentry and Millwork	100%	NDB	DB-NFGS
G5000 Exterior Power, Lighting and Communications Systems	100%	NDB	DB-NFGS
b. General Requirements Sections (with CSI Masterformat designations)			
Division 1 - Gen'l Req'mts			
01010 Summary of Work	100%	NDB	DB-NFGS
01025 Measurement and Payment	100%	NDB	DB-NFGS
01090 References	100%	Traditional	Basic NFGS
01100 Spec'l Proj. Procedures (if applicable)	100%	Traditional	Basic NFGS
01301 Submittals at Design Completion (Phase A)	100%	NDB	DB-NFGS
01302 Submittals During Construction (Phase C)	100%	NDB	DB-NFGS
01310 Progress Schedules	100%	NDB	DB-NFGS
01400 Quality Control	100%	NDB	DB-NFGS
01500 Construction Facilities	100%	Traditional	Basic NFGS
01560 Temporary Controls	100%	Traditional	Basic NFGS
01700 Project Closeout	100%	NDB	DB-NFGS
01730 Operation and Maintenance Data	100%	NDB	DB-NFGS
c. Technical Prescriptive Sections (with CSI Masterformat designations)			
Division 2 - Sitework (Sections as applicable)	100%	Traditional	Basic NFGS

APPENDIX A (Continued)

<u>Type of Service</u>	<u>Completion Level</u>	<u>Type of Effort</u>	<u>Instructions for Preparation</u>
Design Services (Section B) (Continued)			
2. Specifications (Continued)			
c. Technical Prescriptive Sections (with CSI Masterformat designations) (Continued)			
Division 3 - Concrete			
03300 Concrete for Sitework (Edited for sitework concrete only)	100%	Traditional	Basic NFGS
Division 7 - Thermal and Moisture Protection			
07920 Sealants	100%	Traditional	Basic NFGS
Division 8 - Doors and Windows			
08710 Finish Hardware	100%	Traditional	Basic NFGS
08800 Glazing	100%	Traditional	Basic NFGS
Division 9 - Finishes (Sections as applicable)	100%	Traditional	Basic NFGS
Division 10 - Specialties (Sections as applicable)	100%	Traditional	Basic NFGS
Division 11 - Equipment (Sections as applicable)	100%	Traditional	Basic NFGS
Division 12 - Furnishings			
12510 Venetian Blinds	100%	Traditional	Basic NFGS
Division 13 - Special Const.			
13216 Underground Petroleum Tanks (if applicable)	100%	Traditional	Basic NFGS
Division 15 - Mechanical			
15011 Mech'l Gen'l Req'mts	100%	Traditional	Basic NFGS
15250 Insulation of Mech Sys	100%	Traditional	Basic NFGS
15330 Fire Extinguishing Sprinkler Systems (Wet Pipe) (or 15335, Dry Pipe)	100%	Traditional	Basic NFGS
15483 Fuel Oil Handling System (if applicable)	100%	Traditional	Basic NFGS
Division 16 - Electrical			
16011 Elect'l Gen'l Req'mts	100%	Traditional	Basic NFGS
16641 Cathodic Protection by Galvanic Anodes (if applicable)	100%	Traditional	Basic NFGS
16442 Cathodic Protection by Impressed Current (if applicable)	100%	Traditional	Basic NFGS
16722 Interior Fire Alarm System	100%	Traditional	Basic NFGS

APPENDIX A (Continued)

<u>Type of Service</u>	<u>Completion Level</u>	<u>Type of Effort</u>	<u>Instructions for Preparation</u>
Design Services (Section B) (Continued)			
2. Specifications (Continued)			
Division 16 - Electrical (Continued)			
16726 Basic Intrusion Detection Systems (IDS) (if applicable)	100%	Traditional	Basic NFGS
16727 Commercial Intrusion Detection Systems (IDS) (if applicable)	100%	Traditional	Basic NFGS
16760 Intercommunication System (if applicable)	100%	Traditional	Basic NFGS
3. Cost Estimate	100%	NDB	MIL-HDBK-1006/5
NOTE: Section B, Design Services, should also include the preparation and submittal of design analyses (bases of design and calculations) for the following:			
a. Civil	100%	Traditional	
b. Architectural	Schem	NDB	MIL-HDBK-1006/5
c. Fire Protection	100%	NDB	MIL-HDBK-1006/5
d. Mechanical	Schem	NDB	MIL-HDBK-1006/5
Post Construction Contract Award Services (Section C)			
1. Meetings			
a. Pre-Design Conference with Contractor	100%	NDB	MIL-HDBK-1006/5 (See Section 5)
b. Design Progress Meeting	100%	NDB	MIL-HDBK-1006/5 (See Section 5)
2. Submittal Reviews			
a. Review of Contractor's Proposed Design	100%	NDB	MIL-HDBK-1006/5 (See Section 5)
b. Review of Construction Submittals	Limited Effort	NDB	MIL-HDBK-1006/5 (See Section 5)
3. Consultation Services (eg., clarifications during bidding, response to inquiries during contractor's design effort, field consultation for site design, etc.)	---	Traditional	
Supervision and Inspection Services			
1. General Supervision and Inspection Services (if applicable)	100%	Traditional	
2. Environmental Quality Assurance Monitoring and Inspection Services (if applicable)	100%	Traditional	

NOTE: References to the MIL-HDBK-1006/5 are to Section 4, "Preparation of the IFB Package", of that document, unless otherwise noted.

APPENDIX B
STANDARD TRANSMITTAL LETTER FOR REVIEW OF NDB IFB TECHNICAL DOCUMENTS

[A/E OR EFD/EFA LETTERHEAD]

[Date]
[A/E Contract No.,
if applicable]

[REVIEWING COMPONENT ADDRESS]

SUBJ: [DRAFT] [FINAL] SUBMISSION OF
NEWPORT DESIGN BUILD (NDB) INVITATION FOR BIDS (IFB) DESIGN DOCUMENTS
FOR
[PROJECT TITLE]
[PROJECT LOCATION]
[CONSTRUCTION CONTRACT NUMBER]

Gentlemen:

1. We are forwarding the following NDB IFB design documents for the subject project:

[LIST DESIGN DOCUMENTS AND NUMBER OF COPIES FORWARDED FOR REVIEW]

Request you review and comment in accordance with the guidance specified below. Comments are to be submitted to [EFD/EFA], Code [INSERT APPROPRIATE EFD/EFA CODE DEPENDING ON REVIEWING COMPONENT AND EFD/EFA POLICY] by close of business [DATE 10 CALENDAR DAYS PRIOR TO CONTRACTED DATE FOR RETURN OF COMMENTS TO A/E - IFB PREPARER]. Facsimile transmission of review comments is encouraged. [EFD/EFA] Code [_____] facsimile number is [(____) ____-____].

2. Please note that the subject project will be procured via a NDB construction contract. When completed, the enclosed IFB drawings and specifications represent the criteria upon which contractors will prepare their bids for final design and construction of the facility. The IFB drawings consist of a complete site design and partial (schematic) facility design. The IFB specifications consist of a mixture of performance specifications for various building systems and prescriptive specifications for sitework elements and common building components. The NDB construction contract will be awarded to the lowest responsive, responsible bidder. Accordingly, reviews and comments should focus on assuring that the NDB IFB drawings and specifications properly address all project requirements, particularly in the performance specifications sections.

[SIGNED BY A/E IFB PREPARER OR EFD IFB PREPARER]

Copies to:
[COPIES IN ACCORDANCE WITH EFD/EFA POLICY]

APPENDIX C
STANDARD TRANSMITTAL LETTER OF CONFORMANCE REVIEW BY A/E - IFB PREPARER
OF CONTRACTOR'S DESIGN

[A/E LETTERHEAD]

[Date]
[A/E Contract No.]

[OICC (EFD/EFA) ADDRESS
ATTN: COTR]

SUBJ: CONFORMANCE REVIEW OF CONTRACTOR'S DESIGN SUBMISSION FOR
NEWPORT DESIGN BUILD (NDB) PROJECT:
[PROJECT TITLE]
[PROJECT LOCATION]
[CONSTRUCTION CONTRACT NUMBER]

[ENCL: (1) Review comments for the subject project]

Gentlemen:

1. In accordance with the terms of our contract, [A/E - IFB PREPARER FIRM NAME] has reviewed the Contractor's design submission for the subject project for conformance to the requirements of the Invitation for Bids (IFB) package. Based on our review, we have found that the Contractor's design [conforms to the requirements of the IFB] [will conform to the requirements of the IFB subject to the proper resolution of our comments contained in Enclosure (1)] [does not conform to the requirements of the IFB. Major areas of non-conformance are _____. Enclosure (1) lists all specific areas of non-conformance with the requirements of the IFB].

2. Accordingly, we recommend that the Contracting Officer [approve the Contractor's design] [approve the Contractor's design subject to the resolution of the comments contained in Enclosure (1)] [disapprove the Contractor's design and require a resubmission with appropriate revisions to establish conformance to the requirements of the IFB].

[SIGNED BY A/E - IFB PREPARER LEAD TECHNICAL
MANAGER OR PRINCIPAL OF A/E - IFB PREPARER]

Copies to:
[ROICC ADDRESS]

APPENDIX D
STANDARD TRANSMITTAL LETTER NOTIFYING CONTRACTOR OF INCOMPLETE DESIGN

[EFD/EFA LETTERHEAD]

[Date]

[CONTRACTOR ADDRESS]

SUBJ: GOVERNMENT CONFORMANCE REVIEW OF DESIGN SUBMISSION FOR:
[PROJECT TITLE]
[PROJECT LOCATION]
[CONSTRUCTION CONTRACT NUMBER]

ENCL: (1) List of missing or incomplete design documentation for the
subject project

Gentlemen:

1. The Government received your design document submission for the subject project on [DATE] for our review and approval. However, our initial review indicates that the submission is incomplete. Enclosure (1) is a listing of the specific design documentation which is either missing or incomplete and cites the specific contract specification sections, pages and paragraph numbers which require such documentation.

2. In accordance with the terms of our contract, the Government is not proceeding with its review of your submitted design. The [30] [_____] day review period allotted for execution of Phase B, Government Conformance Review, will be adjusted to commence upon receipt of your revised and complete design documentation with no change in contract price and no increase in the total contract completion time provided. Accordingly, you are advised to [submit the appropriate number of copies of missing and incomplete design documentation to all reviewing components as specified in the contract] [resubmit the entire complete design documentation and number of copies to the reviewing components specified in the contract] as soon as possible. Please advise the undersigned as to the anticipated date for Government receipt of complete design documentation and if you desire previous incomplete design documentation returned to you.

[SIGNED BY COTR]

By Direction of the Commanding Officer

Copies to (w/ encl):
Code 02 (Contracting Officer and Contract Specialist)
[ROICC]
[PWO]
[MAJOR CLAIMANT]
[A/E - IFB PREPARER, IF APPLICABLE]

APPENDIX E
STANDARD TRANSMITTAL LETTER NOTIFYING CONTRACTOR OF NON-CONFORMING DESIGN

[EFD/EFA LETTERHEAD]

[Date]

[CONTRACTOR ADDRESS]

SUBJ: GOVERNMENT CONFORMANCE REVIEW OF CONTRACTOR DESIGN SUBMISSION FOR:
[PROJECT TITLE]
[PROJECT LOCATION]
[CONSTRUCTION CONTRACT NUMBER]

ENCL: (1) List of non-conforming items for the subject design submission

Gentlemen:

1. The Government received your design document submission for the subject project on [DATE] and has completed its review. Unfortunately, our review indicates that your design does not comply with the requirements of the Invitation for Bids (IFB) documents and is therefore not approved. Major areas of non-conformance are _____. Enclosure (1) lists all specific areas of non-conformance with the requirements of the IFB, citing the specific contract specification sections, pages and paragraph numbers.

2. In accordance with the terms of our contract, Construction (Phase C) of the contract can not begin until after the Government has reviewed and approved your design documents and written authorization to commence construction is issued by the undersigned. In addition, the [30] [_____] day review period allotted for execution of Phase B, Government Conformance Review, will be adjusted to commence upon receipt of your revised and complete design documentation with no change in contract price and no increase in the total contract completion time provided. Accordingly, you are advised to resubmit the entire complete design documentation and number of copies to the reviewing components specified in the contract as soon as possible. Include a copy of written responses to all Enclosure (1) comments with each copy of the resubmitted design documents. Please advise the Contracting Officer's Technical Representative (COTR) as to the anticipated date for Government receipt of the revised design documentation. Questions relative to Encl (1) may be addressed to the COTR.

[SIGNED BY CONTRACTING OFFICER]

Copies to (w/ encl):
Code 02 (Contract Specialist)
[COTR]
[ROICC]
[PWO]
[MAJOR CLAIMANT]
[A/E - IFB PREPARER, IF APPLICABLE]

APPENDIX F
STANDARD TRANSMITTAL LETTER NOTIFYING CONTRACTOR OF CONFORMING DESIGN

[EFD/EFA LETTERHEAD]

[Date]

[CONTRACTOR ADDRESS]

SUBJ: GOVERNMENT CONFORMANCE REVIEW OF CONTRACTOR DESIGN SUBMISSION FOR:
[PROJECT TITLE]
[PROJECT LOCATION]
[CONSTRUCTION CONTRACT NUMBER]

ENCL: [(1) List of non-conforming items for the subject design submission]
(2) Submittals Register with Column (e) filled in by the Government

Gentlemen:

1. The Government received your design document submission for the subject project on [DATE] and has completed its review. [Subject to the proper resolution of the comments contained in Enclosure (1),] the Government's review indicates that your design complies with the requirements of the Invitation for Bids (IFB) documents and is therefore approved. In accordance with the terms of the contract, design approval shall not be construed as a waiver from performing requirements contained in the IFB which may have been omitted from your design documents. In addition, the Government's review and approval does not constitute approval or acceptance of any variations from the requirements of the IFB unless such variations have been specifically noted by you and approved in writing by the Contracting Officer. The responsibility for a totally integrated design in accordance with the requirements of the IFB remains with you.

2. In accordance with the terms of our contract, submit the following documents to the COTR for the purpose of obtaining Government signatures:

- a. Original stamped or sealed and signed mylar drawings plus [_____] copies. These drawings shall be complete in all respects [, reflecting the incorporation of comments contained in Enclosure (1)]. Include the following NAVFAC drawings numbers in the appropriate space of the title block on each original mylar drawing sheet: [_____] through [_____].
- b. Original cover sheet of the project specification plus [_____] copies of the project specification.

APPENDIX F (Continued)

- c. [_____] copies of the Submittals Register, with columns (a) through (e) and (g) complete. Information for completing column (e) is included in Enclosure (2).
- d. [_____] copies of the design analyses (basis of design and calculations).
- [e. Written responses to Government review comments in Enclosure (1)].

Government representatives will sign the original mylar drawings and the original project specifications cover page and return them to you within 2 working days after Government receipt utilizing overnight delivery service. Upon receipt of the original mylar drawings and project specifications cover page containing the Government representatives signatures, make the distribution of Design Documents for Construction as specified in the IFB specification Section 01301, "Submittals at Design Completion (Phase A)". Return the original mylar drawings, original project specifications, original Submittals Register and original design analyses to the COTR with this submission.

3. Mobilization of storage and office trailers, temporary utilities and surveying may commence at the site while the process of obtaining Government signatures on the original mylar drawings and cover sheet of the project specifications takes place, provided that the Safety Program submittals required by IFB specification Section 01560, "Temporary Controls", has been submitted, reviewed and approved by the Government. Construction work beyond mobilization of storage and office trailers, temporary utilities and surveying may only commence when the ROICC and other Government personnel have received the distribution of Design Documents for Construction (i.e., copies of the design drawings and specifications signed by the Government) and the Quality Control Plan required by specification Section 01400, "Quality Control", has been submitted, reviewed and approved by the Government.

[SIGNED BY CONTRACTING OFFICER]

Copies to (w/ encl):
Code 02 (Contract Specialist)
[COTR]
[ROICC]
[PWO]
[MAJOR CLAIMANT]
[A/E - IFB PREPARER, IF APPLICABLE]

BIBLIOGRAPHY

Briggs, James M. and Wironen, LT Alan M., Newport Design/Build: A Winner for the Government and the Contractor, article appearing in Navy Civil Engineer magazine, VOL XXXII No. 1, Winter/Spring 1993

Federal Construction Council, Consulting Committee on Cost Engineering, Technical Report Number 122, Experiences of Federal Agencies with the Design-Build Approach to Construction, National Academy Press, Washington, DC, 1993

Napier, Thomas R. and Frieburg, Steven R., One-Step and Two-Step Facility Acquisition for Military Construction: Project Selection and Implementation Procedures, U.S. Army Corps of Engineers Construction Engineering Research Laboratory Technical Report P-90/23, Knowledge Base for Alternative Construction Methods, August 1990

Spaulding, Vincent M., Newport Design/Build: A Study on Integrating the Newport Design/Build Strategy into the NAVFACENGCOM Facilities Design and Acquisition Process, Naval Facilities Engineering Command, May 1988

REFERENCES

NOTE: THE FOLLOWING REFERENCED DOCUMENTS FORM A PART OF THIS HANDBOOK TO THE EXTENT SPECIFIED HEREIN. USERS OF THIS HANDBOOK SHOULD REFER TO THE LATEST REVISIONS OF CITED DOCUMENTS UNLESS OTHERWISE DIRECTED.

FEDERAL/MILITARY SPECIFICATIONS, STANDARDS, BULLETINS, HANDBOOKS, AND NAVFAC GUIDE SPECIFICATIONS:

Unless otherwise indicated, copies are available from the Department of Defense Standardization and Specification Program (DODSSP) Customer Service, Standardization Document Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

STANDARDS

FED-STD-795	Uniform Federal Accessibility Standards (UFAS) (Design for Physically Handicapped Persons).
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BULLETINS

MIL-BUL-34	Engineering and Design Criteria for Navy Facilities.
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HANDBOOKS

MIL-HDBK-1008	Fire Protection for Facilities Engineering, Design, and Construction.
MIL-HDBK-1013 (Series)	Series of Military Handbooks on Design Guidelines for Physical Security of Fixed Land-Based Facilities.

NAVFAC GUIDE SPECIFICATIONS

NOTE: This manual references numerous NAVFAC Guide Specifications. A complete listing of current NAVFAC Guide Specifications is given in MIL-BUL-34.

OTHER GOVERNMENT DOCUMENTS AND PUBLICATIONS:

DD1391	FY__ Military Construction Project Data
DD-1426	Standardization Document Improvement Proposal Form.

REFERENCES (Continued)

Standard Form 1442 Solicitation, Offer and Award Form.

NAVFAC 4 - A/E Fee Proposal/Government Estimate Form
11012/TF - 2

BEAP Base Exterior Architecture Plan (for various Naval Installations)

(Unless otherwise indicated, copies are available from the Department of Defense Standardization and Specification Program (DODSSP) Customer Service, Standardization Document Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

CBD Commerce Business Daily

FAR Federal Acquisition Regulation

(Unless otherwise indicated, copies are available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

NON-GOVERNMENT PUBLICATIONS:

Unless otherwise specified, the issues of the documents which are Department of Defense (DOD) adopted are those listed in the Department of Defense Index of Specifications and Standards (DODISS):

CSI Manual of Practice (DOD Adopted)

(Unless otherwise indicated, copies are available from the Construction Specifications Institute (CSI), 601 Madison Street, Alexandria, VA 22314-1791.)

ICBO UBC Uniform Building Code

(Unless otherwise indicated, copies are available from the International Conference of Building Officials (ICBO), Whittier, CA 90601.)

NFPA 101 Code for Safety to Life from Fire in Buildings and Structures

(Unless otherwise indicated, copies are available from the National Fire Protection Association (NFPA), Boston, MA 02110.)

GLOSSARY

Interpret these terms or phrases used in this document as follows.

ADA. Acronym for Americans with Disabilities Act.

A/E. Acronym for Architect/Engineer. An organization or firm of architects and engineers qualified to prepare drawings and specifications and perform related design and engineering services.

A/E - Contractor's Design Agent. The Architect/Engineer (A/E) firm associated with the Contractor who prepares drawings and specifications and performs related design and engineering services in response to the NDB IFB requirements.

A/E - IFB Preparer. The Architect/Engineer (A/E) firm hired by the Government to prepare drawings and specifications and perform related design and engineering services relative to the production of the NDB IFB package.

BEAP. Acronym for Base Exterior Architecture Plan. A document which describes desired characteristics for the exterior appearance of a particular Naval installation (eg., building colors, textures and materials, exterior signage, landscaping, site improvements, etc.).

CBD. Acronym for Commerce Business Daily. A daily list of U.S. Government procurement invitations, contract awards, subcontracting leads, sales of surplus property and foreign business opportunities.

Contract Clauses. Standard clauses from the FAR and other sources used in Government contracts for the procurement of products and services.

Contract Specialist. An individual designated by the Contracting Officer to oversee all matters relative to the contractual provisions of a Government contract.

Contracting Officer. The person within the Government authorized to execute contracts on behalf of the Government. The Contracting Officer's name will appear on the Standard Form 1442.

Contractor. The successful bidder contracted to execute the requirements of the NDB IFB.

COTR. Acronym for Contracting Officer's Technical Representative. For NDB contracts, the person authorized by the Contracting Officer to oversee and administer efforts relative to execution of Phase A and Phase B of the contract.

GLOSSARY (Continued)

CRFD. Acronym for Certified Ready for Design. Documentation prepared during the final stages of the planning process for a project which certifies that the project is ready to proceed to design.

CSI. Acronym for Construction Specifications Institute.

Design/Build. A construction procurement strategy which utilizes one contract for both the design and construction of a facility. The contract may be bid competitively and awarded to the lowest responsive, responsible bidder (sealed bidding procedure) or the contract may be awarded to the proposer offering the best overall value to the Government (negotiation), price and other factors considered. Bids or proposals for the contract are based on facility requirements as expressed through a preliminary design and performance specification.

DM/AIC/EIC. Acronym for Design Manager/Architect in Charge/Engineer in Charge. The person authorized by the Contracting Officer to oversee and administer efforts relative to preparation of the NDB IFB technical documents.

ECC. Acronym for Estimated Cost of Construction. The Government's budget for award of the NDB contract.

EFD/EFA. Acronym for Engineering Field Division or Engineering Field Activity of the Naval Facilities Engineering Command.

FAR. Acronym for Federal Acquisition Regulation. The regulations by which the Government procures products and services.

Fast-Tracking. The simultaneous execution of design and construction activities in order to achieve earlier occupancy or use of a facility.

Government. Naval Facilities Engineering Command acting in the interest of the U.S. Navy/Department of Defense.

Government Estimate. The Government's estimate of the approximate bid price of the NDB contract based on the requirements of the IFB documents.

IFB. Acronym for Invitation for Bids. Refers to the bidding requirements, contract forms, conditions of the contract, drawings, specifications and addenda which are used to solicit bids from Contractors. In the case of NDB, bids are for the design and construction of a facility.

GLOSSARY (Continued)

Major Claimant. The Naval activity funding the cost of the project. Sometimes referred to as the customer.

MCON. Acronym for Military Construction.

MOA. Acronym for Method Of Accomplishment.

NAVFAC. Acronym for Naval Facilities Engineering Command.

NAVFACENGCOM. Another acronym for Naval Facilities Engineering Command.

NDB. Acronym for Newport Design Build. A one-step design/build construction procurement strategy where a preliminary design and performance specification is used to solicit lump sum competitive bids for the final design and construction of a facility with contract award strictly based on the lowest responsive bid from a responsible bidder.

NFGS. Acronym for NAVFAC Guide Specification.

NORTHDIV. Acronym for the Northern Division of the Naval Facilities Engineering Command.

OMSI. Acronym for Operation, Maintenance and Support Information.

Parametric Estimating. The preparation of construction cost estimates based on design parameters in lieu of direct material, labor and equipment costs. Used when preparing construction cost estimates for projects where the design effort is not complete.

Performance Specification. A specification which contains requirements for construction materials, products and systems which must be met and criteria for verifying compliance, but which does not contain unnecessary limitations for selecting materials, products, or systems which will meet the specified requirements.

Post Construction Contract Award Services. Services required of the A/E - IFB Preparer (or EFD/EFA in-house personnel who prepared the NDB IFB technical documents) after the award of the NDB contract. Such services typically include review of the Contractor's proposed design, review of a limited number of construction submittals and consultation services.

GLOSSARY (Continued)

Prescriptive Specification. A specification which completely describes specific materials, products, systems, sizes, ratios, fabrication, quality of workmanship, method of installation, etc. for a construction item. Options are frequently permitted but are limited to those included in the specification.

PWO. Acronym for Public Works Office. The Government office responsible for maintenance of facilities at Naval shore establishments.

QC. Acronym for Quality Control.

Record Drawings. The original contract drawings for the NDB project modified by the Contractor to reflect "as-built" conditions.

RFP. Acronym for Request for Proposal. A request for the offeror's price and an idea of how to do the work in a Source Selection Design/Build procurement.

RFTP. Acronym for Request for Technical Proposal. A request for the offeror's idea of how to do the work in a Two-Step Sealed Bidding Design/Build procurement, without reference to price.

ROICC. Acronym for Resident Officer in Charge of Construction. The person designated by the Contracting Officer as having full authority over execution of the work for a construction procurement.

Schedule of Prices. The Contractor's breakdown of his contract price for the NDB project.

SIOH. Acronym for Supervision, Inspection and Overhead. The ROICC's cost to administer the construction of a project.

Source Selection. Also called One-Step Competitive Negotiation. A Design/Build construction procurement method involving competitive evaluation of proposals using a weighted system of evaluation factors, including price and technical quality. Evaluation involves an in-depth assessment of the proposal and the offeror's ability (management expertise, qualifications, etc.), as conveyed by the proposal, to successfully accomplish the prospective contract. Proposals are evaluated solely on the factors specified in the solicitation. Award is made to the proposer offering the best overall value to the Government.

Standard Form 1442. The document used for solicitation, offer and award of a contract for construction.

GLOSSARY (Continued)

Submittals Register. A listing of construction submittals required by the project specifications prepared by the Contractor.

Supervision and Inspection Services. Services which may be required of the A/E - IFB Preparer after award of the NDB contract. Such services include on site supervision and inspection services in support of the ROICC office.

Tenant/User. The Naval activity occupying the completed facility.

TRACES. Acronym for Tri-Services Automated Cost Engineering System. An automated system for the preparation of construction cost estimates.

Traditional (Strategy). A construction procurement strategy which utilizes separate contracts for design and construction of a facility. The contract for construction is bid competitively and awarded to the lowest responsive, responsible bidder. Bids are based on facility requirements as expressed through fully designed and detailed drawings and prescriptive specifications. Also called Design/Bid/Build or Conventional (Strategy).

Two-Step Sealed Bidding. A hybrid construction procurement method incorporating Design/Build strategy with the competitive bidding procedure of formal advertising for a fixed price. In Two Step Sealed Bidding, technical proposals and bids are submitted in two distinct steps. Bidding is limited to Contractors with approved technical proposals. Contract award is made to the lowest responsive, responsible bidder.

UFAS. Acronym for Uniform Federal Accessibility Standards.

Value Engineering. A systematic approach for seeking out the best functional balance between cost, reliability and performance of the product or project.

VECP. Acronym for Value Engineering Change Proposal. A value engineering proposal made by the Contractor during Phase C, Construction, of an NDB project.

VETS. Acronym for Value Engineering Team Study.

WBS. Acronym for Work Breakdown Structure. A standardized numerical system for categorization of construction costs.

CUSTODIAN
NAVY - YD1

PREPARING ACTIVITY
NAVY - YD1

PROJECT NO.
FACR-1119